Version: 2025-12-02

Weekly Lab Inspection:	
DATE:	Conducted by:
Laboratory 10a – Membrane room	Group Leader: Dr. Peter Kraus

I: General Lab Management	Yes	No	N/A	Corrective Action
1. Are items, equipment, and objects placed appropriately?				
2. Are samples stored away in shelves or storage areas?				
3. Are bench tops and storage areas uncluttered and orderly?				
4. Is unused equipment stored away after use?				
5. Are the food and beverage rules followed?				
6. Are unattended experiments labelled properly?				
II: Waste	Yes	No	N/A	Corrective Action
1. Is the garbage free of broken glass or hazardous materials?				
2. Are all hazardous waste containers, including the ammonia wash bottle, in secondary containment bins?				
3. Are all waste bins (blue, black, red) emptied, if necessary?				
III: Electrical Safety	Yes	No	N/A	Corrective Action
1. Is the wiring on laboratory equipment in good condition and secure along the wall or benches?				
2. Are all electrical outlets, switch plates and circuit breaker box in place and accessible?				
3. Are alarms and safety shut-offs free from obstruction?				
4. Is the lab equipment not in use turned off?				
IV: Supplies & Personal Protective Equipment	Yes	No	N/A	Corrective Action
1. Are paper towels available?				
2. Are protective gloves available and matched to the hazard?				
3. Is eye protection available and used?				
4. Is eye wash station available?				
5. Is gas mask available?				
6. Are respirators for work with powders available?				
7. Are fire extinguishers and alarms free from obstruction?				
8. Is the NH3 detector (Dräger) working properly?				
9. Is the CO detector (Dräger) working properly?				
VI: Chemical Safety	Yes	No	N/A	Corrective Action
1. Are all chemicals stored correctly, segregated by hazard and according to compatibility?				
2. Are all chemical labels intact and not defaced?				
3. Are all chemical containers capped and in good condition?				
4. Are flammable solvents stored appropriately?				
5. Are acids stored appropriately?				
6. Is the ammonia wash bottle clean, free of residue and securely in place?				

REMARK(S):

Version: 2025-12-02

I: General Lab Managment

1. Are items, equipment, and objects placed appropriately?

- All laboratory instruments and equipment are positioned in their designated locations
- Equipment is not blocking aisles, emergency exits, or safety equipment
- Work stations are organized so that frequently used items are easily accessible
- Equipment is stable and not at risk of falling

2. Are samples stored away in shelves or storage areas?

- All chemical samples, experimental samples, and materials are stored on shelves or in designated storage areas
- Samples are not left on benchtops, floors, or blocking work areas
- Sample containers are clearly labelled with QR codes, contents and dates
- Storage areas are organized for easy identification and retrieval

3. Are bench tops and storage areas uncluttered and orderly?

Make sure the workspace is neat: materials, tools, and samples should be put away after use.

- Clear away unused items and reorganize as needed for safer workflow.

4. Is unused equipment stored away after use?

- Equipment is returned to its proper storage location immediately after use
- Temporary equipment or tools brought to the lab are returned (e.g. Peter S.’s workshop)
- Nothing is left "temporarily" on benches or floors
- Equipment is cleaned before storage if required

5. Are the food and beverage rules followed?

Verify that no food or drinks are present or stored anywhere in the laboratory.

- Remove any food items and remind lab users about strict no-consumption rules.

6. Are unattended experiments labelled properly?

Ensure experiments are labelled with the operator’s name, date / time, contact, and any hazard warnings:

- At the location of the experiment in the lab
- At the lab entrance, in case of hazards
- At the gas cabinet in the Halle, in case flammable gases are used (e.g. Forming Gas)

II: Waste

1. Is the garbage free of broken glass or hazardous materials?

Examine trash bins—regular waste only should be present.

2. Are all hazardous waste containers, including the ammonia wash bottle, in secondary containment bins?

- All hazardous waste containers are placed inside secondary containment trays or bins
- Ammonia wash bottle is stored in a designated secondary containment area (blue bucket)

3. Are all waste bins (blue, black, red) emptied, if necessary?

- Blue bins (recyclable paper/cardboard) are not overfilled
- Black bins (regular trash) are emptied before reaching capacity
- Red bins (hazardous/chemical waste) are not overfilled
- All bins are in their designated locations

III: Electrical Safety

1. Is the wiring on laboratory equipment in good condition and secure along the wall or benches?

Inspect cables, plugs, and wires—ensure there are no frayed, exposed, or cracked wires.

- Unplug and report any damaged items for repair or replacement
- No cables are running across walking paths

2. Are all electrical outlets, switch plates and circuit breaker box in place and accessible?

Check that all outlets have covers and are easily reached without moving furniture or equipment.

- Nothing is blocking access to the circuit breaker box

3. Are alarms and safety shut-offs free from obstruction?

- Emergency shut-off switches are clearly visible and accessible
- Nothing is blocking alarm systems (including fire extinguisher, oxygen sensor)
- Emergency buttons are not covered or blocked

4. Is the lab equipment not in use turned off?

When you finish your work, please switch off equipment that is not required to be left running. The exception here are set-ups that take a long time to equilibrate, such as COCoS (PicoVNA) and the GC.

IV: Supplies & Personal Protective Equipment (PPE)

1. Are paper towels available?

Paper towels or towel roll is stocked/available and not empty or nearly empty

2. Are protective gloves available and matched to the hazard?

Gloves should be present and chosen based on the material handled.

- Replace empty or nearly empty boxes of nitrile gloves (S and L)
- Check that heatproof mitts are available

3. Is eye protection available and used?

Lab users must always wear safety goggles when inside the lab.

- Ensure goggles are available in the box outside the lab.
- Ensure googles are not broken or dirty.

4. Is eye wash station available?

- Eyewash station is clearly marked and accessible
- No obstructions block access to the station

5. Is gas mask available?

Gas masks are stored in accessible, marked location and cartridges are not expired.

- Ensure emergency gas mask outside the lab is available.
- Ensure fitted gas mask and filters are stored appropriately.

6. Are respirators for work with powders available?

Respirators (N95, P100, or equivalent) are available for powder handling.

- Ensure a spare respirator is available
- Ensure used respirators are stored appropriately, or disposed of.

7. Are fire extinguishers and alarms free from obstruction?

- Ensure fire extinguisher is clearly visible and accessible
- Ensure alarm boxes and switches are free from obstruction.

8. Is the NH_3 (Ammonia) detector (Dräger) working properly?

Check/Test if the Dräger Device is working properly and has a charged battery

- Ensure it activates/alarm functions work and report malfunctions.

9. Is the CO (Carbon Monoxide) detector (Dräger) working properly?

Same as Ammonia detector check, please make sure its also functional.

- Ensure it activates/alarm functions work and report malfunctions.

V: Chemical Safety

1. Are all chemicals stored correctly, segregated by hazard and according to compatibility?

- Check that chemicals are stored in separate drawers/cabinets based on their hazard class:
  - No mixture of liquids and solids.
  - No mixture of oxidisers and reducing agents.
  - No mixture of acids and bases.
- Check that sample drawers are not overfull.

2. Are all chemical labels intact and not defaced?

- Inspect all bottles and containers in shared storage.
  - Labels must be readable (not peeling, faded, or damaged),
  - Labels must show the chemical name, hazard information, and not be smeared or missing.
  - Materials must be labeled with a QR code.

3. Are all chemical containers are capped and in good condition?

Check that containers holding chemicals are tightly closed and show no leaks, cracks, or damage.

- Replace any faulty container immediately and transfer contents if necessary.

4. Are flammable solvents stored appropriately?

Ensure flammable liquids (e.g., acetone, ethanol) are stored properly:

- Maximum permitted amount in the lab is 1 wash bottle of acetone and 1 wash bottle of ethanol.
- Ensure wash bottles are not overfilled and not empty.
- Nozzle should be pulled out to avoid dripping.
- Make sure solvent wash bottles are stored away from hot plates and electrical outlets.

Ensure other flammable liquids are not stored in the lab.

5. Are acids stored appropriately?

- Verify acid (if any) are inside a designated cabinet.
- Verify small vial of dilute HCl (used for neutralisation of NH_3 wash bottle) is filled and labelled.

6. Is ammonia wash bottle clean, free of residue and securely in place?

Check that the Ammonia wash bottle is stored in designated secondary containment

- Bottle is clean with no residue on the exterior / interior
- If in use, cap and connections are tight and secure
- Secondary containment is free of spills