

## **SINQ Sample Preparation WetLab (Room EG 002 / Building WNLA) Guideline**

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It is a brief summary of the “Operation Procedure SINQ Sample Preparation WetLab” Room EG 002 / Building WNLA” which allows for the users to get quick overview but it will not substitute the full text which can be found [here](#).

The SINQ WetLab is allocated in the controlled area therefore; all of the precautions for this specific space have to be followed (e.g. §5p36).

**Access to the lab room only after instruction by the instrument responsible (local contact) or by the room responsible person!**

The laboratory room serves basic equipment to prepare samples to be investigated at PSI beamlines.

**Defect devices and deficits of room infrastructures have to be reported to the room responsible.**

**Laboratory responsible** person ([Dariusz Gawryluk](#) / Tel 4181) is in charge of supervision of safety infrastructure, chemicals (handling, storage, waste disposal), glove-box, fume hood, organizing of service and reparation of the lab equipment, coordination of the co-responsible and assistant work (§3p14).

**Laboratory co-responsible** person ([Christian Wessler](#) / Tel 4701) is in charge “Millipore”, chemical glass dishwasher, basic general consumables and chemicals (§3p15).

**Laboratory assistant** person ([Silvan Stamm](#) (LDM) / Tel 3540) is in charge of pumps, control of proper indication and labelling of user’s working places, ordering and changing of He and H<sub>2</sub>/He gas bottles for the glove-box (§3p16).

**Beamline scientists** ([local contacts](#)) are in charge of instructing users to follow the “Operation Procedure SINQ Sample Preparation WetLab EG 002 WNLA”, instructing users how to use: glove-box, fume hood, centrifuge, press, sharps disposal containers (§3p17).

**Advisors** ([supervisors](#), PI) of the users are responsible for a safe working procedures and instruction of all team members involved into the experiment (§3p20).

**PSI Safety Officer** ([Winfried Randler](#) / Tel 2677); **Radiation protection expert** ([Albert Fuchs](#) / Tel 4487); **Chemical safety** ([NN](#) / Tel *tba*); **Biosafety** ([Philip Berger](#) / Tel 4728).

*Acute toxic elements and compounds* (e.g. hydrofluoric acid (HF), Beryllium (Be), Mercury (Hg), etc.) **require contact experts** in advance. Only research work with biological material on biosafety level 1 (BL-1) is allowed. This includes small lab works like diluting suspensions or solutions, extractions from plant materials as well as cutting off fractions of a bio crystal etc. Other activities with biomaterials require **contact experts** in advance.

**Users** are expected to bring all specific equipment, tools, materials and consumables. All special requests have to be discussed with instrument responsible (local contact) in advance.

Users have to declare all of the chemicals they intend to bring to the SINQ WetLab in the DUO system.

Users have to know the following information/rules before starting the corresponding work:  
A) Hazards, transport, storage, handling, usage, control, return and disposal of materials which users use (solids, liquids, aerosols, cryogenes, gases, etc.). B) Location of fire extinguishing equipment, emergency shower, eyewash, first aid kit, chemicals’ absorbers, and biosafety setup.

Users have to wear the personal protective equipment (PPE): A) **mandatory lab coat** and **safety glasses (contact lenses are forbidden)**, B) if health is affected **suitable gloves** and dust (gas) **mask**. The user's working space has to be marked.

All users' materials have to be stored in the provided storage boxes labelled with the completed form (user's name, local contact's name, instrument, phone number, sample description, and time range of the experiment - start and end date).

Work with open flame, hot plates and hazardous stuff; especially with volatile materials (toxic solids, aerosols (generated by ultrasound and centrifugations), biohazards, nanoparticles, organic solvents, strong acids and alkaline solutions) have to be carried out in the fume hood. Fume hood has to be properly closed to work safely. Using of open flame and hot plates in the lab increase explosion risk.

All users' samples, materials and consumables brought by the users have to be removed by themselves after the end of the experiment. If some samples stay in the glove box, they have to be clear labelled and registered in the glove box logbook (Name, Institution, chemical formula, duration of storage).

All chemicals when they are not anymore required have to be disposed. Users have to follow the PSI concept for recycling and disposal. Users are obliged to use minimal amounts of chemicals to reduce waste. Inactive and active waste must be strictly separated. Disposing of chemicals has to be done properly using the available containers for acid, organic solvent and water solution wastes. All other chemicals/samples can be disposed in the "chemical/sample waste tray" in closed containers with a label indicating the contents. Plastic containers for waste are available next to the tray. All waste containers and trays are placed at the ventilated collection place (on the left site of the fume hood). The SINQ WetLab doesn't have capacity to store extraordinary amount of solvent wastes therefore, the amount of the produced waste has to be reasonable. If sample preparation requires a large volume of solvent, the user has to discuss this in advance with the PSI local contact (beamline scientist) and the laboratory responsible.

For needle disposal, use the special sharps collecting box.

All biological wastes (including used wipes, tissues, gloves, pipette tips etc.) have to be disposed and sealed in special (yellow) waste bags which must be checked by the radiation protection unit at PSI before those bags leave experimental areas in WNHA as well as WNLA and are to be transferred to BIO department for extermination. Above **require contact experts** in advance.

Each user is urged to leave the lab clean and well ordered.

**Not-sufficiently labelled containers will be removed at any time and disposed of without further notice by the room responsible persons ((\$5p56).**

**Disregard of the directions will result, even without remanding, in immediate cancellation of access to room WNLA / EG 002 (\$11p81).**