

General and specific laboratory and workshop instructions (ASLS)

§1 Validity

Valid for the **Department of Mineralogy and Crystallography (IfMK)** at the Faculty of Earth Sciences, Geography and Astronomy (FGGA) of the University of Vienna, in addition to the general laboratory and workshop regulations of the University of Vienna with respect to the radiation safety instructions (SSU) and laser safety instruction (LSU) of the IfMK in the respective version.

§2 Legal Basis

In the respective current versions:

Arbeitsschutzgesetz (ASchG)

§ 29 Strahlenschutzgesetz (StrSchG)

§16 Allgemeine Strahlenschutzverordnung (AllgStrSchV)

§11 Natürliche Strahlenquellen-Verordnung (NatStrV)

Verordnung optische Strahlung (VOPST)

Allgemeine Arbeitnehmerschutzverordnung (AAV)

§3 Downloads

(www.univie.ac.at/Mineralogie → Forschung → Laborsicherheit)

http://www.univie.ac.at/Mineralogie/docs/IfMK_Unterweisung_ASLS_e.pdf

(www.univie.ac.at/Mineralogie → Forschung → Laborsicherheit [Strahlenschutz-Unterweisung])

http://www.univie.ac.at/Mineralogie/docs/IfMK_Unterweisung_SSU_e.pdf

(www.univie.ac.at/Mineralogie → Forschung → Laborsicherheit [Laserschutz-Unterweisung])

http://www.univie.ac.at/Mineralogie/docs/IfMK_Unterweisung_LSU_e.pdf

(Allgemeine Labor- und Werkstättenordnung der Universität Wien)

http://anchem.univie.ac.at/fileadmin/user_upload/anchem/allgemeines/Laborordnung_Mitteilungsblatt.pdf

§4 Contact Persons

Information on the current laboratory/workshop managers (= Laborbereichs/Werkstättenleiter) and responsible persons (Labor/Werkstätten-Verantwortliche), instrument operators (= Geräteverantwortliche) und official IfMK representatives (= IfMK Beauftragte) can be found:

http://www.univie.ac.at/Mineralogie/docs/IfMK_Laborverantwortliche.pdf

http://www.univie.ac.at/Mineralogie/docs/IfMK_Geräteverantwortliche.pdf

§5 Contents of instruction

The behaviour in the laboratories and workshops basically have to follow the directives of the General Laboratory and Workshop Regulations of the University of Vienna (=Allgemeine Labor und Werkstättenordnung der Universität Wien)

The following specific regulations apply with respect to the hazards, risks, and the use of hazardous materials and agents at the IfMK laboratories and workshops:

1. Entering laboratories or workshops is strictly prohibited for unauthorized persons (persons that are not instructed in safety and health protection) without being accompanied by authorized personnel. Any work activity requires the respective instructions and holding a valid safety instruction in advance of beginning of work.
2. It is prohibited for authorized users of laboratories and workshops to give access to unauthorized persons; this does not apply to laboratory/workshop managers. Moreover, it is strictly prohibited to pass the keys for laboratories or workshops to third parties. The loss of keys must be reported immediately to the IfMK.
3. Laboratories and workshops must be kept locked when not in use.
4. The laboratory/workshop manager must be informed of all activities through the user.
5. Independent modifications of the laboratory infrastructure and their settings (e.g. air conditioning, ventilation/air extraction system, water supply and drainage, illumination and shadings) is strictly prohibited without arrangement with the laboratory/workshop manager.
6. The implementation of new operations and techniques, which involve chemical agents, the use of gases or any hazardous material and materials dangerous to health, must be coordinated with the laboratory/workshop manager.
7. Die authorized laboratory/workshop user must be informed about instruments and tools (e.g. chemical agents, furnances, machines) through respective operating instructions, material safety data sheets, and manufacturer's instructions. He/she must be instructed in the use through the responsible instrument operator.
8. Working alone in laboratories or workshops in general must be avoided in order to ensure prevention from accidents and occupational diseases. It is strictly prohibited, if there is a foreseeable high risk for injuries or health damage, which might need immediate help from a further person. This includes manipulation on high-voltage electric devices (X-ray generators), set-up and alignment of experimental workplaces using open laser or X-ray beams, and handling of compressed gases in gas cylinders and gas container.
9. Provided protective clothing and protection devices (z.B. fume hoods, air extraction devices, safety shields, safety goggles, gloves, workwear, etc.) must be used by the users.
10. Wearing safety goggles is mandatory for all activities, in particular to prevent the eyes from harmful influences such as intense light, chemical agents, hot, cold or etching liquids, dust and splinters.

11. Cleanliness and order in the laboratory/workshop workplaces have absolute priority! Please label all container, plastic boxes, bottles etc. in the laboratory (material, name, date, hazard potential) in order to prevent mistakes and confusion. It is expected that every user is leaving her/his workplace clean and tidy.
12. Only the daily requirement of chemical agents is allowed to be stored at the workplaces in the laboratories or workshops.
13. Hazardous materials and agents (paints, varnishes, flammable liquids, acids, alkalis, gases,...) must be kept in the provided in the safety cabinets or fume hoods. In case of particular hazard potential it must be ensured that unauthorized persons do not have access to these items.
14. It is strictly forbidden to store chemical agents or potentially hazardous materials in overhead positions.
15. Furthermore it is strictly forbidden to store chemical agents or potentially hazardous materials in other containers than for proper storage dedicated ones, in particular not to use containers intended for food storage.
16. Eating, drinking and smoking is strictly prohibited in all laboratory and workshop areas including associated storerooms.
17. In case of handling of open fire and flames, persons with long hair need to use hairbands or comparable in order to avoid loose hair.
18. In case of working with X-ray sources or beams of ionising radiation it is prohibited to bring bodyparts into the beam path. All issues of the respective radiation safety instructions (SSU) must be followed.
19. In case of using optical lasers in instrument set-ups (e.g. Raman spectroscopy), all issues of the respective laser safety instructions (LSU) must be followed.
20. In case of using compressed gases in gas cylinders it is necessary to avoid any warming of the gas containers. It is strictly prohibited for unauthorized users to manipulate or mount/dismount cylinder valves and pressure reducers. Moreover it is prohibited to transport gas cylinders without authorisation.
21. In case of using laboratory furnaces, users must consider intense thermal radiation and the escape of hot or hazardous volatiles and fumes when opening the furnace. The use of provided heat protection clothing (e.g. gloves) and face protection is mandatory. The use of furnaces is only permitted after receiving appropriate instruction from the responsible operator and after reading the operation manual.
22. In case of using cryogenically liquified gases (e.g. liquid nitrogen), it is mandatory to use the provided protective equipment (insulating gloves, face protection, safety goggles). Arms and legs must be completely protected (no shirts and shorts), and closed shoes (safety shoes) are recommended. Open pockets and folded legs of trousers and shirtsleeve should be avoided. Transport and storage of liquified gases is only allowed in certified container (dewer). Decanting and transport of liquefied gases is only permitted for authorised personell.

23. In case of using electrical techniques with high- or low-voltage components, it is mandatory to carry out visual inspection of electrical equipment. Obviously damaged equipment must be disconnected from the main supply; plugs should be touched only on insulating handle parts. Independent repair is prohibited for unauthorized user. In case of broken generators with high-voltage tanks, it is forbidden to touch the device at all. The laboratory manager must be informed immediately. Take special care when electrical devices are wet. It is prohibited to make serial plugs of power strips. In case of electrical faults, press the emergency button (red knob above the laboratory bench).
24. Instruments and devices available in the laboratory/workshop area must be handled with care. For the autonomous withdrawal of devices and small instruments or tools from the laboratory/workshop it is mandatory to leave a note (identification of the object, name, date) at the original place. Removed items must be returned as soon as possible.
25. Escape routes in emergency cases, behaviour in the event of an accident or in case of fire, and emergency numbers must be kept in mind. Maps for the next access point for emergency services as well as first aid measures and emergency call numbers are posted in rooms with special hazards and at all corridor doors. You are advised to consider the ideal approach point (EZ1 to EZ6) in case of alerting emergency services. Furthermore you are instructed to pick up and guide the rescue teams of the emergency services at the relevant approach point as indicated in the maps presented at any exit door in laboratories, workshops, and corridors. These instructions must be followed in cases of emergency.

In emergency cases the code of conduct should be followed: **KEEP CALM - REPORT – SAVE LIVES IF POSSIBLE – BRING YOURSELF OUT OF DANGER – WITHOUT PLAYING THE HERO.**
26. Accidents involving personal injury or property damage must be reported: immediately by dialing the emergency service (rescue: 144, fire brigade: 133, police: 122, concierge at the main entrance: 14966). Thereafter the laboratory/workshop manager(s) and the IfMK safety officer must be informed. Moreover the department RRM (Abteilung Arbeitssicherheit) must be notified, even in case of near-accident events.
27. Courses in research laboratories and internship facilities require the documented instruction of all students/participants in the respective safety filed (ASLS, SSU, LSU)
28. Access rights to users, who repeatedly ignored instructions and warnings, can be withdrawn at any time through the laboratory/workshop manager or the institute director.

Wien, February 21st 2017

Institute Director

Ronald Miletich-Pawliczek e.h.

Safety Officer

Wolfgang Zirbs e.h.