

GENERAL SAFETY INSTRUCTION 2023

FRITZ-HABER-INSTITUT
MAX-PLANCK-GESELLSCHAFT





The legal basis for the safety instructions is regulated by laws and given by the employers' liability insurance association (Berufsgenossenschaft) and the government

- The instruction must be documented!

Please note!

- This is a General Safety Instruction!
- The special dangers in the laboratory provide an special briefing by the responsible scientist



Verwaltungs-Berufsgenossenschaft
Mitgliedsnummer: 8404240103
VBG Bezirksverwaltung Berlin
Markgrafenstr. 18
10969 Berlin
Tel. 77003-0



FRITZ-HABER-INSTITUT
MAX-PLANCK-GESELLSCHAFT

Department of Physical
Chemistry

General Safety Instruction

Dr. Harald Kirsch
Tel.: 5244
Room: G2.08
kirsch85@fhi-berlin.mpg.de

Accidents



Accidents at work

Accidents at work are accidents that occur during work.

(Attention: Accidents occurring during a break, e.g. slipping in the “Mensa”, are not insured!)

Travel accidents

These accidents are accidents while travelling to and from the institute or for example on the way to “Mensa” and on the way back



Accidents must be reported to the employer's liability insurance association (via the FHI Personalstelle)!



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Ban of alcohol and drugs at work

- In the institute it is generally prohibited to drink alcohol or to use drugs!
- In particular, work is prohibited under the influence of alcohol or other drugs and their use during working hours.



- Smoking is only allowed outside the institute buildings
- **no eating and drinking in the lab**



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Tidiness at work

Keep your workplace tidy at all times



- Better this way!



- Please not like this!



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Tidiness at work

- Avoid stumbling hazards



- No power outlet strips on the floor –
Danger of electrical accidents caused by water on the floor



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Tidiness at work



- Use cable bridges

- Use the double floor for the connections



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Fire and emergencies



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What can cause a fire?



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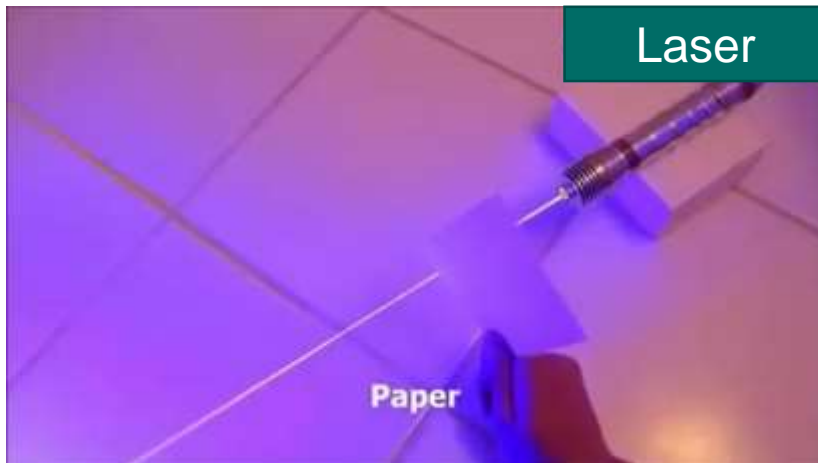
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← Too much
power consumption
or short circuit

Overheated
notebook or
powersupply



← Paper and
laserbeam
(esp. IR-
Laser)

Dr. Harald Kirsch
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Fire Prevention



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- Existing escape routes have to be always free!
- Do not store flammable material in the escape routes!

- Fire extinguishers, fire detectors, signs etc. must be accessible and visible at all times, and may not be obscured or built over!



Dr. Harald Kirsch
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Fire Prevention



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Behavior in case of fire

In case of fire:

Keep calm - Report the fire:

Actuate the manual fire alarm
(Alarm tone and flashing light gets active)



Call emergency number 112

Wait for inquiries!

(the call will be terminated by the fire service control center!)



Please note!

- If there is smoke in the escape routes - stay in your room. Close the door and try to alert other people
- Warn others, take people who need help with you
- Follow the marked escape routes



- Do not use an elevator



**Go directly to the
assembly point**



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Escape and Rescue

The assembly point for the department of Physical Chemistry is next to the department building in the direction of Faradayweg.



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How to use a fire extinguisher

Remember P.A.S.S.



- **P** – **P**ull the Pin
- **A** – **A**im the extinguisher nozzle at the base of the flames
- **S** – **S**queeze trigger while holding the extinguisher upright
- **S** – **S**weep the extinguisher from side to side, covering the area of the fire



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Behavior in case of fire



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There are different types of fire extinguishers in our institute

Foam
(in the office area)



Powder
(widely used)



Carbon dioxide
(in the lab)



- The place of storage is indicated by this sign



Dr. Harald Kirsch
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Escape and Rescue Plan

FLUCHT- UND RETTUNGSPLAN



Example of an escape and rescue plan
You will find actual one on each level of the
building



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In the lab



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Special case laboratory



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Be careful when handling chemicals. These may be:

- Flammable or highly flammable
- Very toxic, toxic or harmful
- Carcinogenic
- Toxic for reproduction
- Mutagenic
- Dangerous to the environment

Danger!



METHANOL

Highly Flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs.



Dr. Harald Kirsch
Tel.: 5244
Room: G2.08
kirsch85@fhi-berlin.mpg.de

Special case laboratory - Chemicals



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- Do not misuse containers or bottles to avoid confusion

- Good and mandatory:
Labeling and warning labels



Dr. Harald Kirsch
Tel.: 5244
Room: G2.08
kirsch85@fhi-berlin.mpg.de

Special case laboratory – Gas Alarm



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Every Lab has a gas warning system with warning light and a siren

- Warning system glows **yellow**:
 - pre-alarm is active
 - something is not in normal state, but not critical

It is recommended to leave the lab and inform person in charge

- Warning system glows **red** and a warning beep sounds:
 - Gas alarm active
 - **Leave the lab immediately and help colleagues**
 - inform person in charge and follow the instructions given at the lab entrance
 - Call 4444 if nobody is around to help

Dr. Harald Kirsch
Tel.: 5244
Room: G2.08
kirsch85@fhi-berlin.mpg.de

Special case laboratory – Gas bottles

Gas bottles:

Protect against falling over,
but please don't tie it to the tap



**If you work with dangerous gases, you
have to wear a personal detector (e.g. CO)**



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Special case laboratory – Gas bottles

If the valve of a gas cylinder breaks off:



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Special case laboratory – Cryogenic gases

- Danger of suffocation during evaporation of large quantities of liquid gas
- Danger of explosion in closed containers
- Danger of frostbite / cold burns when in contact with liquid gas (similar effect to heat burning)
- Danger of eye contact: Risk of severe eye damage
- When touching cryogenic surfaces (especially metal surfaces): Risk of freezing
 - ➔ wear protective gloves, glasses and closed shoes when working with it



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Special case laboratory – Vacuum

- When a glass vessel implodes, the debris parts are first accelerated into the interior of the destroyed vessel, but only partially decelerated by the resulting collisions and then fly apart again explosively



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Special case laboratory – Electrical safety

Damage to leads or housings can be dangerous.

Therefore, make sure that the equipment is in perfect condition before use!

Working with open housing or contacts is forbidden!

In case of damage:

- Do not use the device. Disconnect and/or pull the plug.
- Avoid use by others and report the damage!
- No unauthorized repairs!



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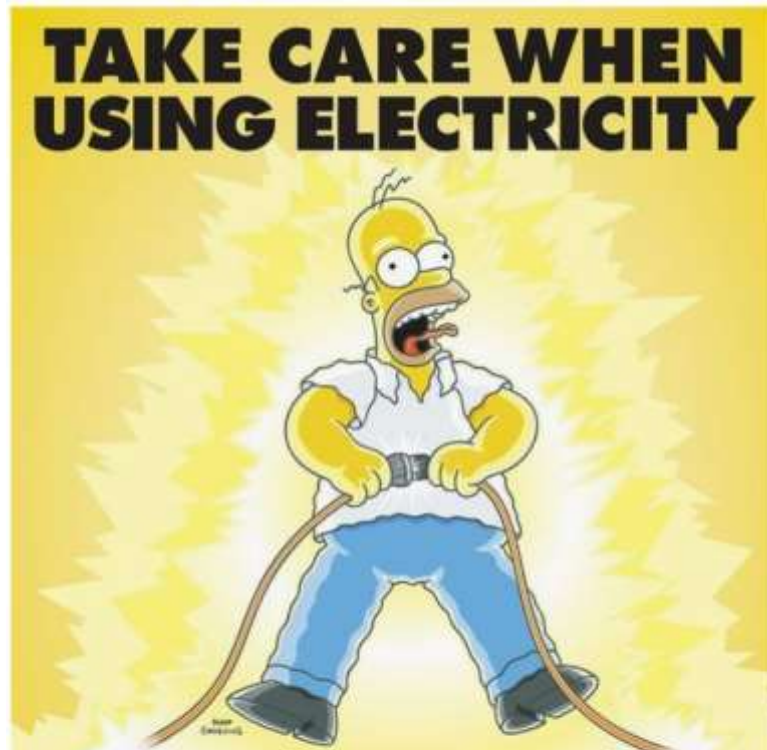
Special case laboratory – High voltage



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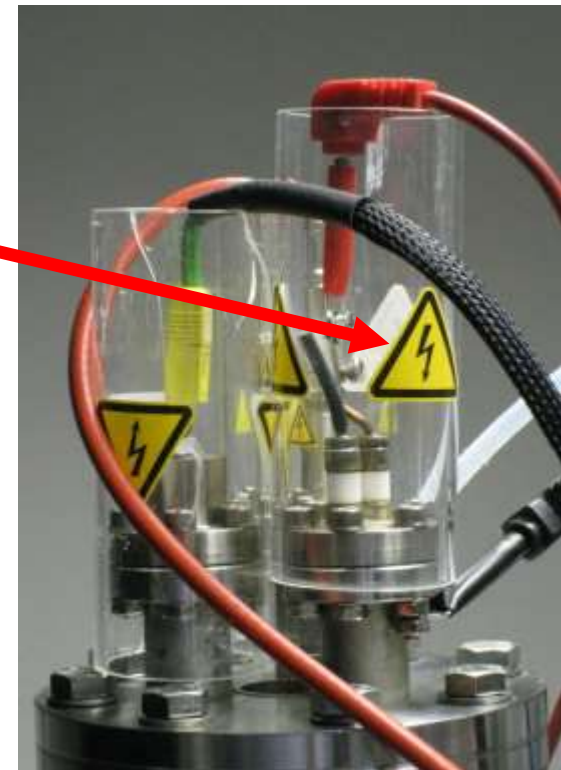
General Safety Instruction



IT HAS THE
POWER TO KILL.



Pay attention
to warning
signs



Dr. Harald Kirsch
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Special case laboratory – High voltage

Very important!

If you got an electric shock it is **absolutely necessary** to visit a hospital for a check-up (EKG)

You need to be examined to rule out cardiac chamber fibrillation



Next Hospital:

Charité - Universitätsmedizin Berlin, Campus Benjamin Franklin
Hindenburgdamm 30, 12203 Berlin

Dr. Harald Kirsch
Tel.: 5244
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kirsch85@fhi-berlin.mpg.de

Emergency organization

First aid



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Emergency organization - first aid



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First-aiders close by

name	room	phone	floor
Sabine Wasle	G 0.10	5151	0. floor
Angelika Demling	G 1.05	5127	1. floor
Joachim Lehnert	G 1.05	5119	
Julius Heitz	G 1.15	5217	
Harald Kirsch	G 2.08	5244	2. floor

In-House Medical Assistant:

Thomas Lehmann, building L, phone 1010

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Emergency organization - first aid



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In case of injuries/ accidents :

- If necessary call First-Aid Helper (Ersthelfer) or call in-house paramedic Thomas Lehmann (Tel.: 1010) (see information on small cabinet or FHI-Intranet)
- Use dressing materials from inside the small cabinets with the first aid kits to treat the injury
- If necessary call emergency (Tel.:112)
- In any case write into the small booklet what happened and put the report in the mailbox at the wall



Dr. Harald Kirsch
Tel.: 5244
Room: G2.08
kirsch85@fhi-berlin.mpg.de

Who can help me?



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General Safety Instruction

Instructor: Harald Kirsch

Instructor: Groupleader

Instructor: Sabine Wasle

Instructor: Daniel Wegkamp

Approver: Marcel Krenz

Safety Briefings and Lab Access / Sicherheitsunterweisungen und Laborzugang

Test Test (TG Krenz)

General Safety / Allgemeine Betriebssicherheit

planned for / given by / Room
12. Apr. 2021 02:00 PM
Harald Kirsch, room: G 2.08

participated on:
teilgenommen am:
03/05/2021
Date / Datum

Signature Participant / Unterschrift Teilnehmer

Signature Supervisor / Unterschrift Unterweisender

Specific Safety / spezielle Sicherheitsunterweisung

planned for / given by / Room

participated on:
teilgenommen am:
Date / Datum

Details and signature on the
back side!

Chemical Safety / Chemiesicherheit

planned for / given by / Room

participated on:
teilgenommen am:
Date / Datum

Signature Participant / Unterschrift Teilnehmer

Signature Supervisor / Unterschrift Unterweisender

Laser Safety / Lasersicherheit

planned for / given by / Room
25. Okt. 2021 02:00 PM
Daniel Wegkamp, room: G 0.15

participated on:
teilgenommen am:
Date / Datum

Signature Participant / Unterschrift Teilnehmer

Signature Supervisor / Unterschrift Unterweisender

Laser Safety Glasses: none

Lab Introduction / Einweisung Labore

- Laserlab 1 / Cleanroom Physik 1 D K.05 Chemie 1 & 2
 Laserlab 2 Physik 2 STM

planned for / given by / Room

participated on:
teilgenommen am:
Date / Datum

Signature Participant / Unterschrift Teilnehmer

Signature Supervisor / Unterschrift Unterweisender

Lab Access / Laborzugänge:

02.10.2021 - 12.11.2022

- Laserlab 1 / Cleanroom
 Laserlab 2 / Laserhalle 2
 STM
 FEL Lab (DK.05)
 Chemie 1 & 2
 Physik 1 Physik 2

Lab access approved / Laborzugang freigegeben

Date / Datum

Marcel Krenz
room: G 2.07 phone: -5115

Dr. Harald Kirsch
Tel.: 5244
Room: G.2.08
kirsch85@fhi-berlin.mpg.de

More information



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https://www.fhi.mpg.de/75769/intern

INSTITUTE RESEARCH EVENTS & NEWS SERVICE CAREER



FRITZ-HABER-INSTITUT
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DEUTSCH Search



Fritz Haber Institute > Intern

Internal Websites and Links

- ② Administration
- ② Apartment Reservation
- ② Appointees
- ② Interessengemeinschaft Betriebliche Gesundheitsförderung
- ② LabView
- ② Room reservations
- Sustainability Group
- ② Safety at Work
- Telephone Database
- ② Web Mail
- ② Works Council

Dr. Harald Kirsch
Tel.: 5244
Room: G2.08
kirsch85@fhi-berlin.mpg.de

More information



Important Information
e.g. poison emergency number,
Hospitals close by ...



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Thank you for your attention!



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I hope you don't feel that way

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