

WELCOME TO THE ANNUAL GENERAL SAFETY INSTRUCTION



GENERAL SAFETY INSTRUCTIONS

Annually or before you start working at the ER-C you need to attend to the general work safety instruction.

These sheets are a **summary** of the “Info Sheets”. (iffwiki)
For further information please check the documents at the **er-c.org website**.

(link: <https://er-c.org/index.php/access/safety-instructions/>)



ORGANIZATIONAL

For all laboratories and equipment of the ER-C Room Officers and Instrument Officers have been appointed. Please find them listed in the **safety info sheet**, too. (iffwiki)

In this table you will find the contact persons in the ER-C regarding occupational safety and radiation protection:

Function	Institute	Name	Building Room number	Tel Nr.	E-mail
Area Representative Bldg. 05.2W, 05.2S, 05.7	ER-C 1,2	R. Borowski	05.2S 3003	6700	r.borowski@fz-juelich.de
Area Representative Bldg. 04.6	PGI -5	C. Thomas	04.6 96	3152	c.thomas@fz-juelich.de
Area Representative Bldg. 05.2W 05.2V	ER-C 3	A. Katranidis	05.2V 4008	85474	a.katranidis@fz-juelich.de
Safety Officer Bldg. 05.2W, 05.2S, 05.7	ER-C 1,2	M. Kruth	05.2W 3079	3605	m.kruth@fz-juelich.de
Hazardous Materials Officer Bldg. 05.2W, 05.2S,	ER-C 1,2	L. Kibkalo	05.2W 3084	3910	l.kibkalo@fz-juelich.de
Hazardous Materials Officer Bldg. 05.2W, 05.2S,	ER-C 1,2	P. Pacio	05.2W 3080	9338	p.pacio@fz-juelich.de
B-SSB (Radiation Safety Officer) Bldg. 05.2S, 05.2W, 04.6	ER-C 1,2	C. Thomas	04.6 96	3152	c.thomas@fz-juelich.de
C-SSB Radiation Safety Officer Bldg. 05.2S, 05.2	ER-C 1,2	M. Kruth	05.2W 3079	3605	m.kruth@fz-juelich.de
C-SSB Radiation Safety Officer Bldg. 05.2S, 05.2W	ER-C 1,2	L. Kibkalo	05.2W 3084	3910	l.kibkalo@fz-juelich.de
C-SSB (t.b.a.) Radiation Safety Officer Bldg. 05.2W	ER-C 3	P. Sundermeyer	0.5X 2066	2066	p.sundermeyer@fz-juelich.de

(link: <https://er-c.org/index.php/access/safety-instructions/>)

GENERAL INSTRUCTIONS FOR SAFE WORKING

EMERGENCY AND ACCIDENT REPORTING

EMERGENCY : call 77
via cell phone call : 02461 61 77

REMEMBER THE 5-W QUESTIONS:

- **WHERE** is the emergency? (check **telephone sticker**)
- **WHAT** has happened?
- **WHAT** is the number of people involved?
- **WHAT** injuries are recognizable?
- **WAIT** for further questions!



COMPANY DOCTOR

- **COMPANY MEDICAL SERVICE:**
building 15.2 opposite the Seecasino, Tel. 5262
- **FIRST AID BOXES** are located at the entrances/exits and at the secretary's offices



GENERAL INSTRUCTIONS FOR SAFE WORKING

BASICS

- Don't eat and drink in the laboratories.
- Identify possible hazards related to your activities and experiments.
- Get the correct PSE (**P**ersonal **S**afety **E**quipment) and USE IT!
- Do not work alone with hazardous materials or equipment.
- If you plan to work with electron microscopes, you need the instrument training coordinated from your day-by-day supervisor **and** the X-ray safety instruction.

THINK before you **ACT** - **ASK** before you do anything (**stupid**)



INSTRUCTIONS REGARDING ...

ELECTRICAL SAFETY

- Pay attention to danger signs and barriers.
- Check that electric devices are in perfect condition (e.g. cables, powerplugs...) -> test seal ?
- Do not open the protective covers of equipment operated with high voltage.
- Do not use devices whose electrical test seal has expired, or which have none at all.



INSTRUCTIONS REGARDING ...

FIRE

- **Call emergency 77.**
- Try to extinguish the fire, but do not endangering yourself.
- Leave the room, help your colleagues. Never take risks!
- Do not enter areas which are filled with smoke!
- Never use the elevator in case of fire!
- Evacuate the building through the nearest exist!



HANDLING OF GLASS CRYOSTATS AND GLASS DEWARs

- Safety goggles or face shield, (cryogenic) gloves, long trousers and closed shoes must be worn during filling, transport and assembly on glass cryostats.
- Be careful with handling metal objects/tweezers in the glass dewar.
- Protect TEM viewports against splashes of liquid N₂ with a cover.



HANDLING OF LIQUEFIED GASES

Take care to avoid any contact with your eyes and your skin. Wear cryogenic gloves, safety goggles or face shield, long trousers and closed shoes to avoid freezing injuries.

Make sure of a working and good air ventilation!

Do not ride together in the elevator with a tank filled with liquified N₂ or He !



HANDLING OF COMPRESSED GAS CYLINDERS

Use the **gas cylinder trolleys** for transportation and wear protective garment. (e.g. safety shoes)

Never transport a gas cylinder with mounted pressure regulator

Gas cylinders shall **always be secured** to walls or to solid laboratory benches.



HANDLING OF CHEMICALS AND HAZARDOUS MATERIALS

Chemical experiments & their setup :

Must be approved by the **project leader** and the **laboratory officer**

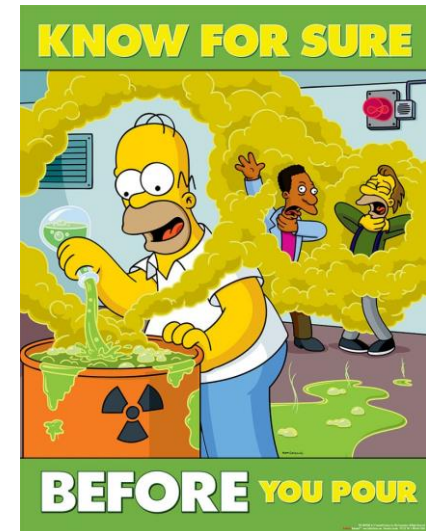
Ordering of (new) chemicals -> via the **Hazardous Substances Officers**

Identify possible dangers and the protective measures to be taken if working with chemicals. (check MSDS, risk assessment...)

Place **correct labels** on chemical containers!

Chemicals **must not** be disposed **into the wastewater!**

Use the correct **disposal canisters!**



HANDLING OF ELECTRON MICROSCOPES

Only authorized and qualified persons are allowed to work with the electron microscopes.

Ask your supervisor to get the necessary instrument training.

The instrument officer should be informed about new users, nonstandard experiments and any issue with the microscope.

Use the right tools for the accessories, keep the workplace tidy and ask before you cause damage (or a disaster).

-> listen carefully to the **X-ray safety instructions** later <-



WORKING ON SUNDAYS / PUBLIC HOLIDAYS

The support and safety structures are only minimally staffed outside the normal working hours and on Sundays.

Work on Sundays is generally not allowed by law in Germany. **Exceptions are possible.**

Thus, we distinguish areas with low safety risks from those with high safety risk.

- **Low safety risk:** Offices, data processing and operator rooms as well as laboratories used for electron microscopy, provided that the equipment is in a condition that complies with the type-approval or **CE** certification.
- **High safety risk:** workshops, chemical and furnace rooms, laboratory rooms (a) with experimental equipment without CE certification, (b) in which work is performed **at high temperatures and pressures**, (c) in which there is a **risk of explosion or suffocation**, and (d) with equipment involving **open high-voltage installations**.



WORKING ON SUNDAYS / PUBLIC HOLIDAYS

On **Sundays** and **public holidays** voluntary work is only permitted under exceptional circumstances in **low safety risk** areas.

Working in areas **with a high safety risk** is then **prohibited**.

Because of different approaches regarding granting Sunday work between the institutes please consult this with your supervisor and read the „Info Sheets“ regarding work safety.

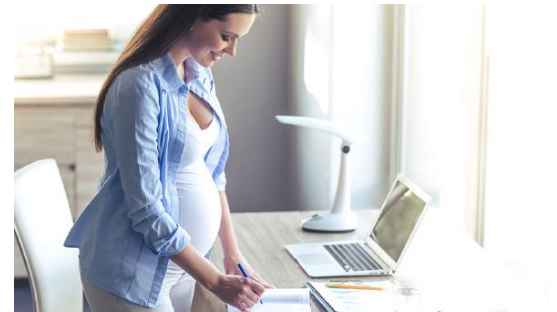
(<https://er-c.org/index.php/access/safety-instructions/>)



PREGNANCY

Congratulations! Please contact your **supervisor** and the **area officer** in confidence before commencing **any further activities** in the laboratory or with an electron microscope.

You may contact your family ambassador for support, too.
(Jenna Wilbs)



BUILDING EVACUATION

If you hear a **three-step acoustic signal**, this means an unusually situation -> Listen to the announcement!

SECURE your experiment in case of a building evacuation. Inform any guests or colleagues who may not have understood the loudspeaker announcement.

CLOSE the windows, **CLOSE** the doors but **do not lock** them!

Go to the **assembly point** for the ER-C.
It is located at

Foyer of the Central Library

Building 4.7u



**KEEP
CALM**

AND WAIT

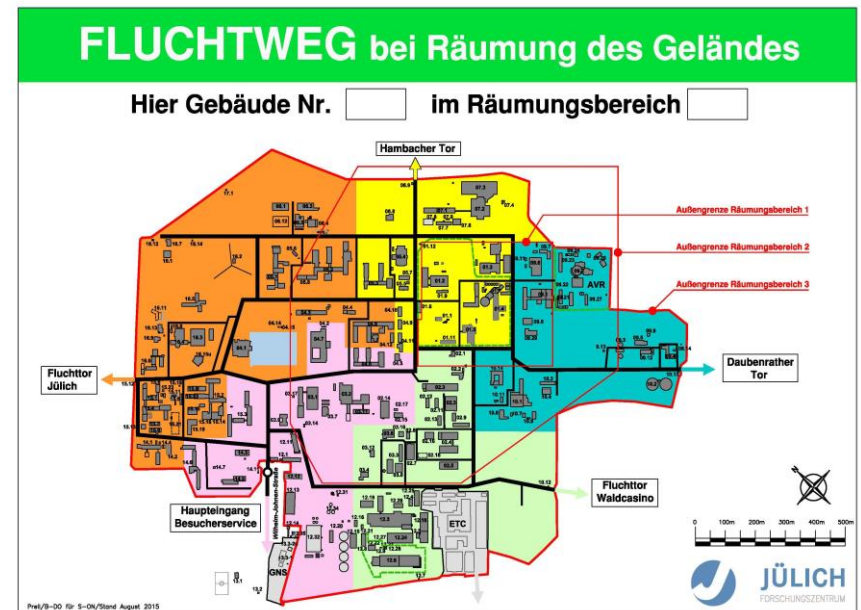
**FOR FURTHER
ANNOUNCEMENTS**



WHAT TO DO IN THE CASE OF A GENERAL RADIATION ACCIDENT

Two categories of announcements are possible:

- "**Evacuation readiness**" -> Remain in the building for the time being and await further announcements: **Secure your experiments – prepare to leave.**
- "**Immediate evacuation**" -> Leave the **CAMPUS** immediately via the escape gates.
- The **escape gates** are:
 - "**Main Gate**" for building 04.6
 - "**Fluchttor Jülich**" for building 04.8, for buildings 05.2S, 05.2W and 05.2 V
 - "**Hambacher Tor**" for building 05.7
 - Please read further details in the safety documents of the FZ.



SUMMARY

Remember: **Emergency call 77**

Identify possible hazards

Use your PSE

Think before you act

Ask before you do anything (stupid)

Use equipment only after **instruction**

Any questions?

