

**ANNUAL GENERAL
SAFETY INSTRUCTION
&
ANNUAL X-RAY
SAFETY INSTRUCTION**

GENERAL SAFETY INSTRUCTIONS

These sheets are a **summary** of the “Internal Safety Instructions”. (iffwiki)

For further information please check the documents at the **er-c.org website!**

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

EMERGENCY AND ACCIDENT REPORTING

EMERGENCY : call 77

via cell phone call : 02461 61 77

REMEMBER THE 5-W RULE:

- **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 e.g 05.2S R 3004



ORGANIZATIONAL

People responsible for implementing health and safety measures for the ER-C are listed in a table in the detailed safety document.

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@tz- juelich.de
Area Representative Bldg. 04.6	PGI-5	C. Thomas	04.6 96	3152	c.thomas@tz- juelich.de
Area Representative Bldg. 05.2W 05.2V	ER-C 3	A. Katranidis	05.2V 4008	85474	a.katranidis@tz- juelich.de
Safety Officer Bldg. 05.2W, 05.2S, 05.7	ER-C 1,2	M. Kruth	05.2W 3079	3605	m.kruth@tz- juelich.de
Hazardous Materials Officer Bldg. 05.2W, 05.2S	ER-C 1,2	L. Kibkalo	05.2W 3084	3910	l.kibkalo@tz- juelich.de
Hazardous Materials Officer Bldg. 05.2W, 05.2S	ER-C 1,2	P. Paciok	05.2W 3080	9338	p.paciok@tz- 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@tz- juelich.de
C-SSB Radiation Safety Officer Bldg. 05.2S, 05.2	ER-C 1,2	M. Kruth	05.2W 3079	3605	m.kruth@tz- juelich.de
C-SSB Radiation Safety Officer Bldg. 05.2S, 05.2W	ER-C 1,2	L. Kibkalo	05.2W 3084	3910	l.kibkalo@tz- juelich.de
C-SSB (t.b.a.) Radiation Safety Officer Bldg. 05.2W	ER-C 3	P. Sundermeyer	0.5X 2066	2066	p.sundermeyer@tz- juelich.de

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)

GENERAL INSTRUCTIONS FOR SAFE WORKING

BASICS

Before you start working at the ER-C you need the general work safety instruction!

If you plan to work with electron microscopes, you need the x-ray safety instruction and an instrument training from the instrument officer.

Inform yourself about possible hazards related to your activities and experiments.

Obtain the correct PSE (**P**ersonal **S**afety **E**quipment) and **USE IT!**

Do not work alone with hazardous materials or equipment!

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



INSTRUCTIONS REGARDING ...

FIRE



- **Call emergency 77!**
- Only make an attempt to extinguish the fire if you are not in danger!
- 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!

ELECTRICAL SAFETY

- The opening of equipment operated with high voltage is prohibited!
- Do not use devices whose electrical test seal has expired, or which have none at all!



HANDLING OF GLASS CRYOSTATS AND GLASS DEWARs

Face shield and (cryogenic) gloves must be worn during filling, transport and assembly work on glass cryostats.

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.

Please contact your family ambassador for support
(Jenna Wilbs)



HANDLING OF LIQUEFIED GASES

Wear face shield, cryogenic gloves and closed footwear when transferring liquid N₂.

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

Compressed gas cylinders shall always be secured to walls or to solid laboratory benches.

Never transport a gas cylinder with mounted pressure regulator!

Use the **gas cylinder trolleys** for transportation and wear protective garment.



HANDLING OF CHEMICALS AND HAZARDOUS MATERIALS

All experiments with chemicals as well as the set-up of the reaction apparatus must be approved by the **project leader** and the **person responsible for the laboratory**.

Contact the **Hazardous Substances Officers** regarding the ordering of chemicals.

Inform yourself about the **possible dangers and the protective measures** to be taken if working with chemicals.

Example: Be and Be alloys are **toxic**. ->Avoid using mouth vacuum operated tweezers. Do not come into direct contact with Be and its alloys.

Always place a **correct label** on the chemical container! (at least the **name** and the **composition** of the chemical inside)

Chemicals **must not** be disposed **into the wastewater**. Please ask for the correct **disposal canisters**.



HANDLING OF ELECTRON MICROSCOPES

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

Contact the instrument officer for an instrument training.

Only authorized and qualified persons are allowed to open the electronic cabinets because of possible high voltage.

Protect the viewports against splashes of liquid N₂ with a cover.

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



WORKING ON SUNDAYS / PUBLIC HOLIDAYS

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 safety standard equivalent to 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) in which work is performed on equipment involving **open high-voltage installations**.

On **Sundays** and **public holidays**, during **general company shutdowns** work is only permitted under exceptional circumstances and is generally **prohibited** in areas **with a high safety risk**.

Exceptions are possible if :

The work in areas with a **low safety risk** has been approved in consultation with the **head of the institute** and the person **responsible for the laboratory**. Please follow the regulations which are described in detail in the safety document if you need to ask for a work exception!

BUILDING EVACUATION

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

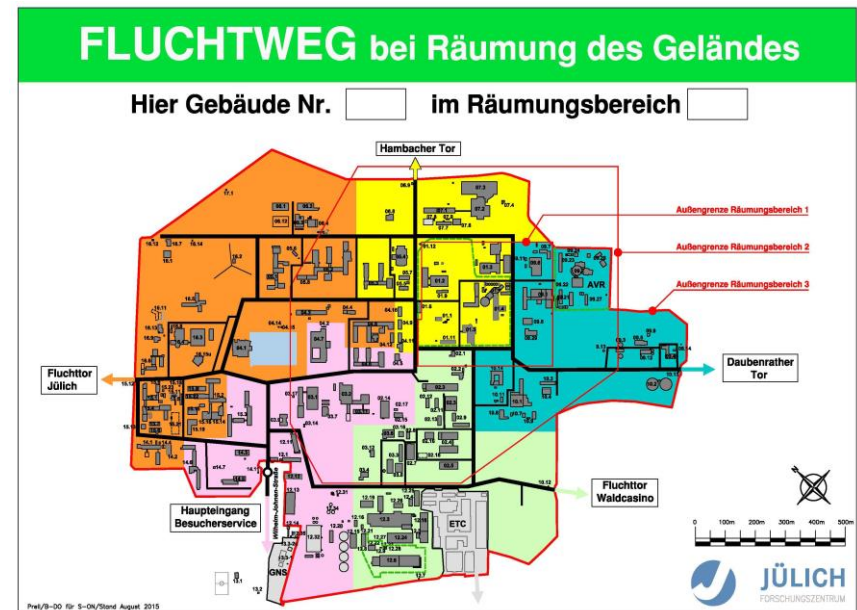
**FOR FURTHER
ANNOUNCEMENTS**



WHAT TO DO IN THE CASE OF A GENERAL RADIATION ACCIDENT

In the case of site-wide evacuation alert, two categories of warning announcements are to be distinguished:

- "**Evacuation readiness**": In this case, you are to remain in the building for the time being and await further announcements: **Secure your experiments – prepare to leave.**
- "**Immediate evacuation**": In this case, you must leave the **CAMPUS** immediately via the escape gates.
- The **escape gates** to be used for an evacuation of the site 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**

Always **THINK** before you act

ASK before you do anything (**STUPID**)

Use equipment only after instruction

Any Questions?

