



Safety in Laboratories

Entering cleanroom laboratories

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General requirements

- Laboratory safety rules, warnings signs, notifications, instrument manuals must be followed
- Personal protective equipment, clothing, footwear
- Running, rushing, struggling not allowed
- The laboratory: tidy and clean
- No eating or drinking
- The doors between and leading to laboratories must be kept closed



Before work

- Relevant work & safety rules, instrument instruction manuals and procedures must be read
- Unnecessary objects removed from the workstation
- Equipment and instruments must be in the correct state of operation



During work

- The workstation must be kept tidy
- Notify the supervisor if:
 - equipment is malfunctioning
 - dangerous situation arises
 - an experiment is left unattended

After work

- Used equipment turned off
- Workstations cleaned
- Personal protective equipment stored in correct places
- All instruments, tools, accessories, components, user manuals, furniture etc must be stored at the assigned locations only

Work with light sources

- Eye protection: safety goggles when working with laser beams, light bulbs
- Working with UV-lights – suitable eye, skin protection (protective clothing, gloves)
- Never look directly into a laser beam, avoid looking into laser beam reflections
- Keep eyes higher/lower than laser beam level
- Optics must be shielded with paper when placing them in front of the laser beam
- Laser beam shuttered when not used



General requirements for cleanroom laboratories

- Training
- Procedures for entering and using the cleanroom laboratories must be introduced
- Instruments must be cleaned before taking them into cleanroom laboratories
- Changing room must be used before entering cleanroom laboratories



Entering cleanroom laboratories

- Forbidden items in cleanrooms:
 - Books
 - Stationery
 - Food, drinks, chewing gum
 - Cosmetics
 - Other objects that can contaminate the cleanroom with dust
- All items must be cleaned properly



Entering cleanroom laboratories: changing room

- Outdoor footwear, high heeled shoes must be taken off
- Sick people should not enter the changing room, cleanroom laboratories
- If clean room clothing has been taken outside the changing room, it must be properly cleaned
- Smoking must be avoided before entering changing room



Entering cleanroom laboratories: changing room

- Must only be used for the purpose of changing clothes
- Maximum two people at a time
- Changing room – tidy & clean at all time
- When exiting, used clothes must be placed in the allocated area



Entering cleanroom laboratories: changing room

- Order when changing clothes:
 - Clean hands
 - Put on hairnet
 - Put on beard net (if applicable)
 - Put on the clean room suit (it should not touch floor)
 - Put on clean room shoes
 - Put on gloves, clean them
 - Check in the mirror to ensure proper wearing of the cleanroom clothing



Entering cleanroom laboratories: entering

- Cleanroom door cannot be opened before the changing room door is closed
- Before entering:
 - All required gear is worn properly
 - 3 steps have been made on the sticky mat
 - Objects being brought to the cleanroom laboratories are not forbidden and have been cleaned



Thank you!