

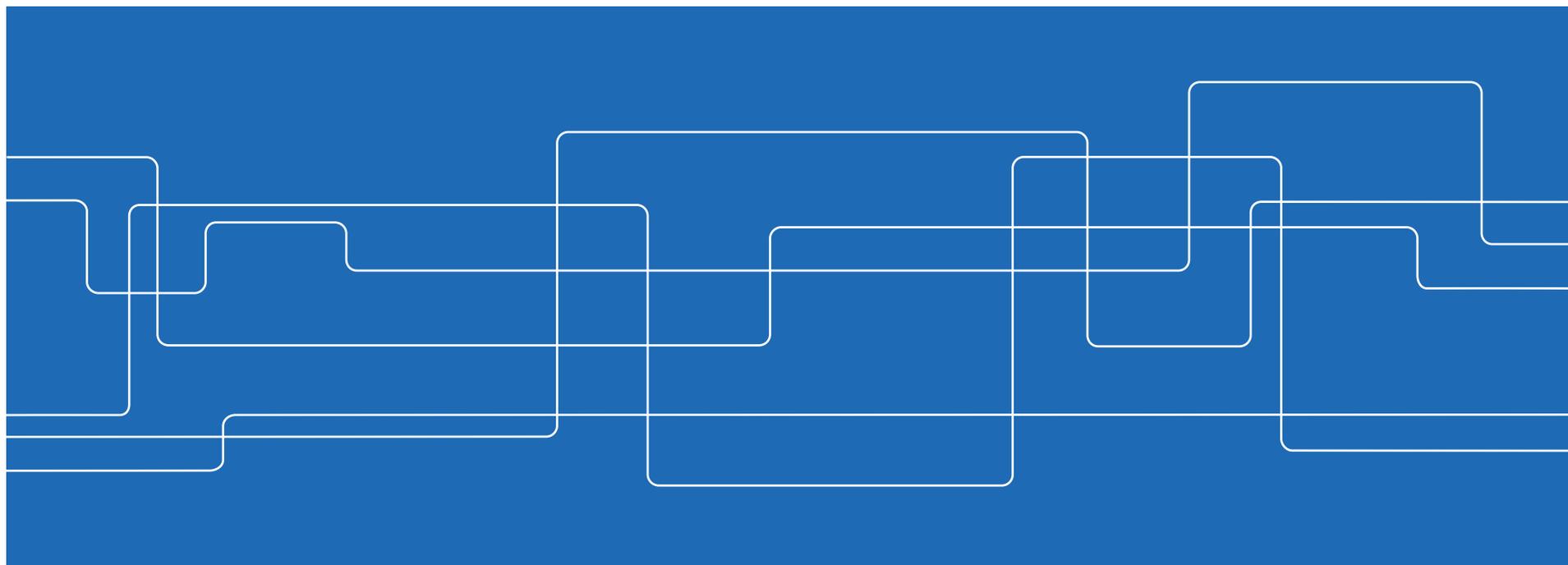


# Fire safety at Organic Chemistry, CHE



Friday seminar  
March, 18th

Oleksandr Kravchenko





## List to do/know/remember: outline

- ✓ Course in fire prevention at KTH (free)
- ✓ Evacuation plan at least for (1) your office (2) your lab
- ✓ Know where at least the closest fire extinguisher is
- ✓ Know whom to follow in case of evacuation
- ✓ Know where you should go in case of big accident
- ✓ Have the plan on how to deal with the fire on your working place



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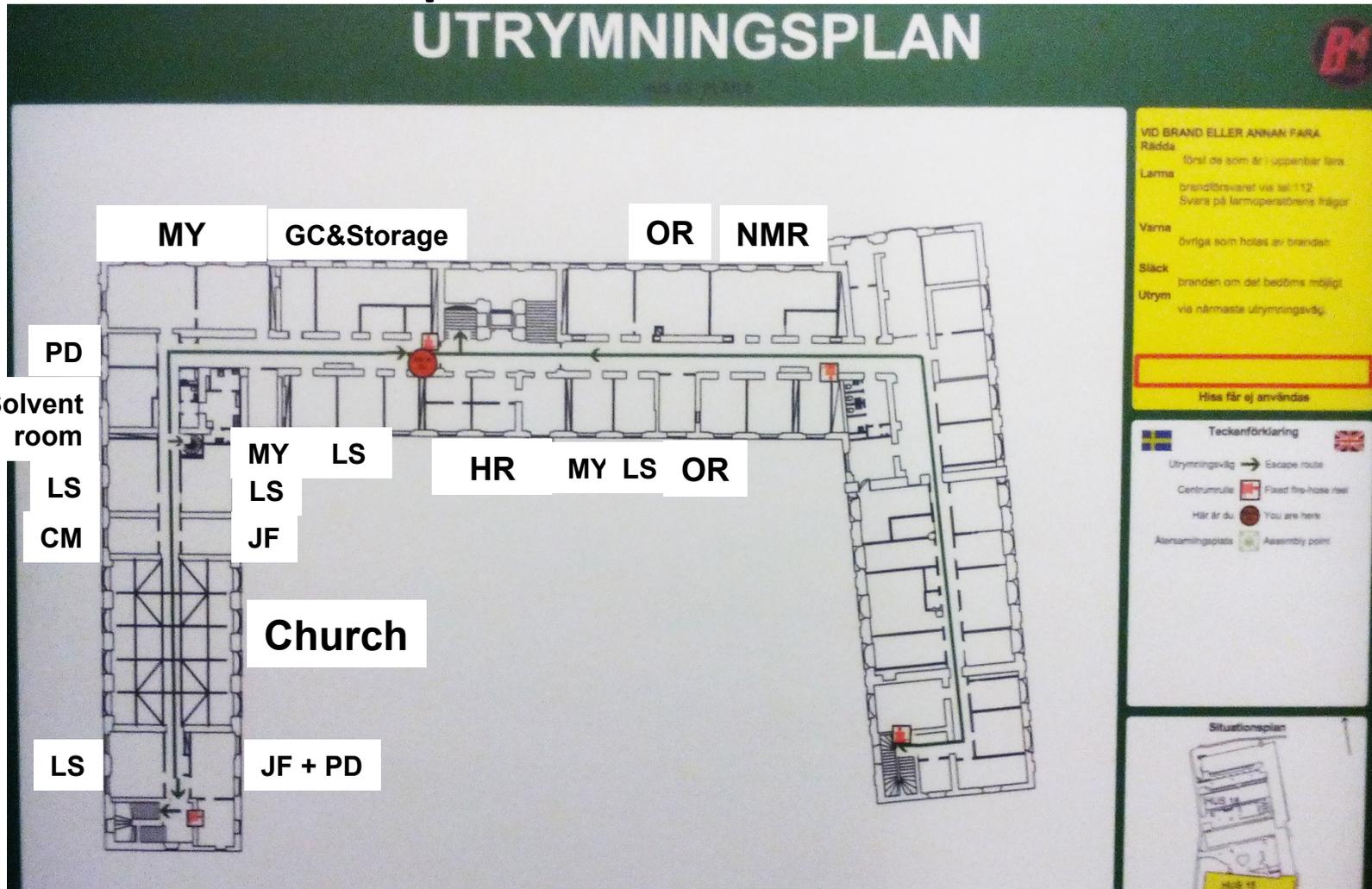
# Evacuation plans

When you have to evacuate:

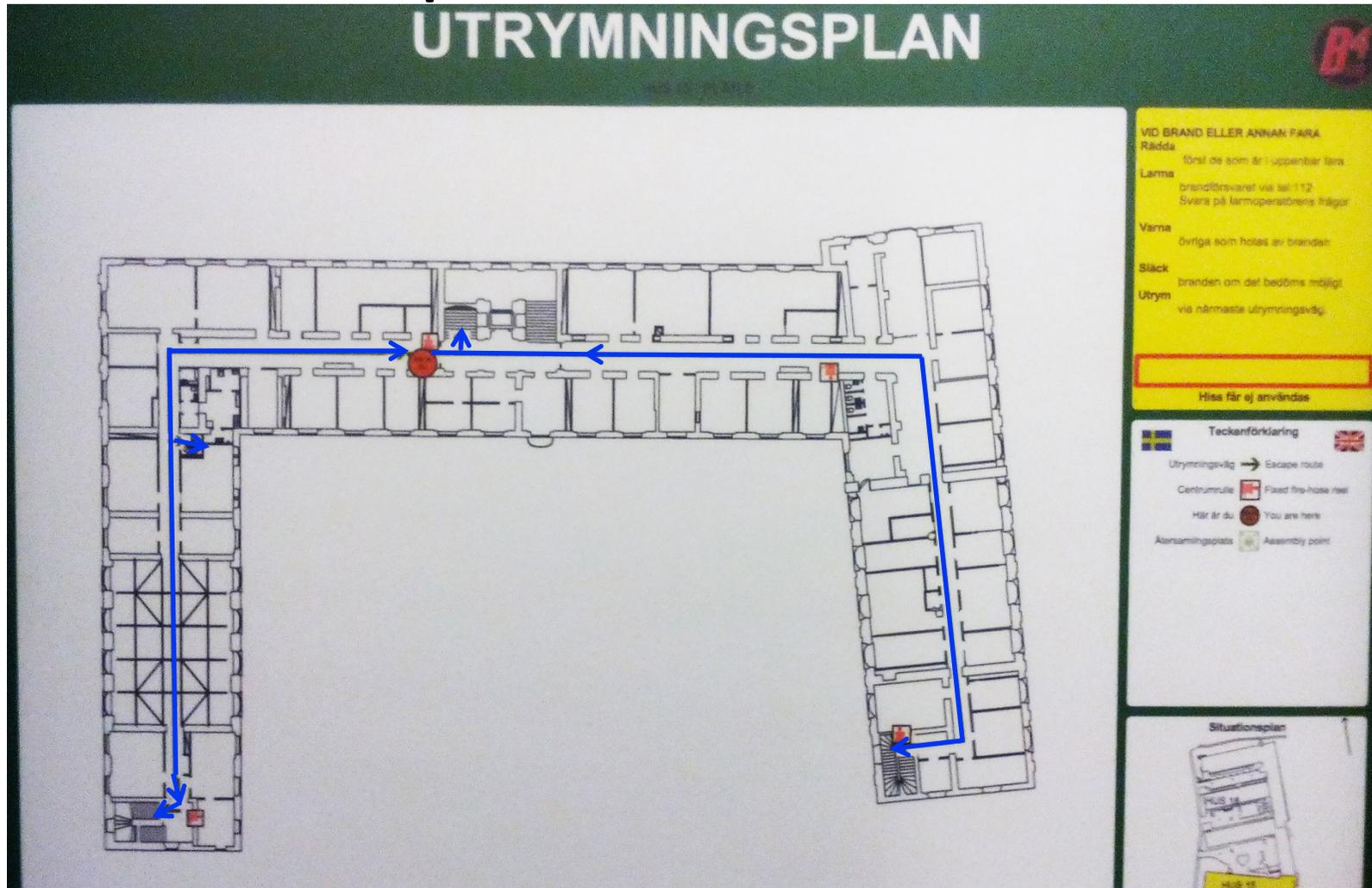
- you do not have time to look for the plans
- the routes to the plans might be blocked by fire/smoke
- you do not have time to check out the plans (you need 5-20 sec)

This means you should know the evacuation routes **before** something happens

# Evacuation plans



# Evacuation plans

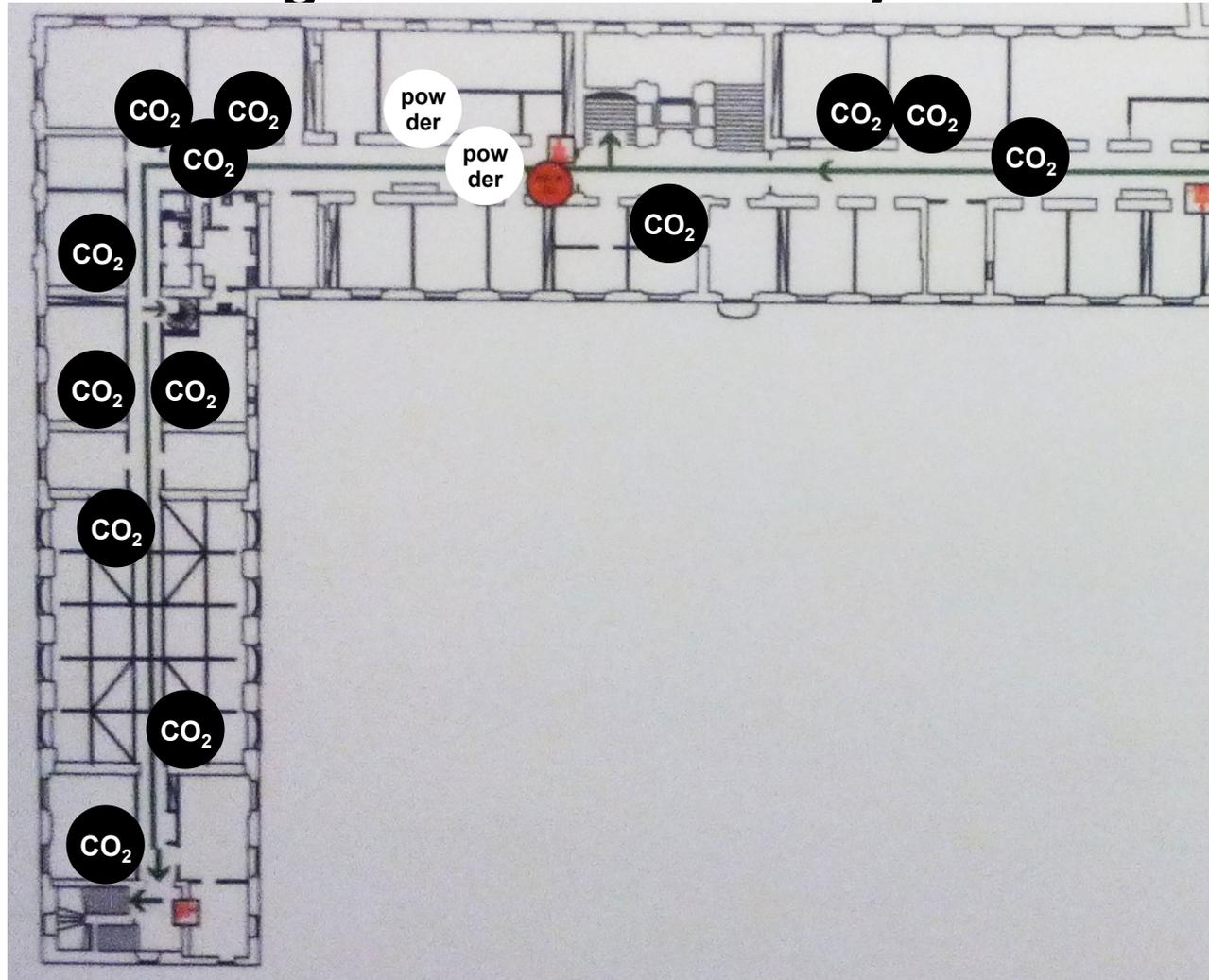




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# Fire extinguishers: where they are





# Fire extinguishers: what they are

## Do not rely on extinguishers!

1. You are not superheroes

1.1 You need at least some experience to master it

1.2 In a stressful situation, to quench an old lighter will be your best

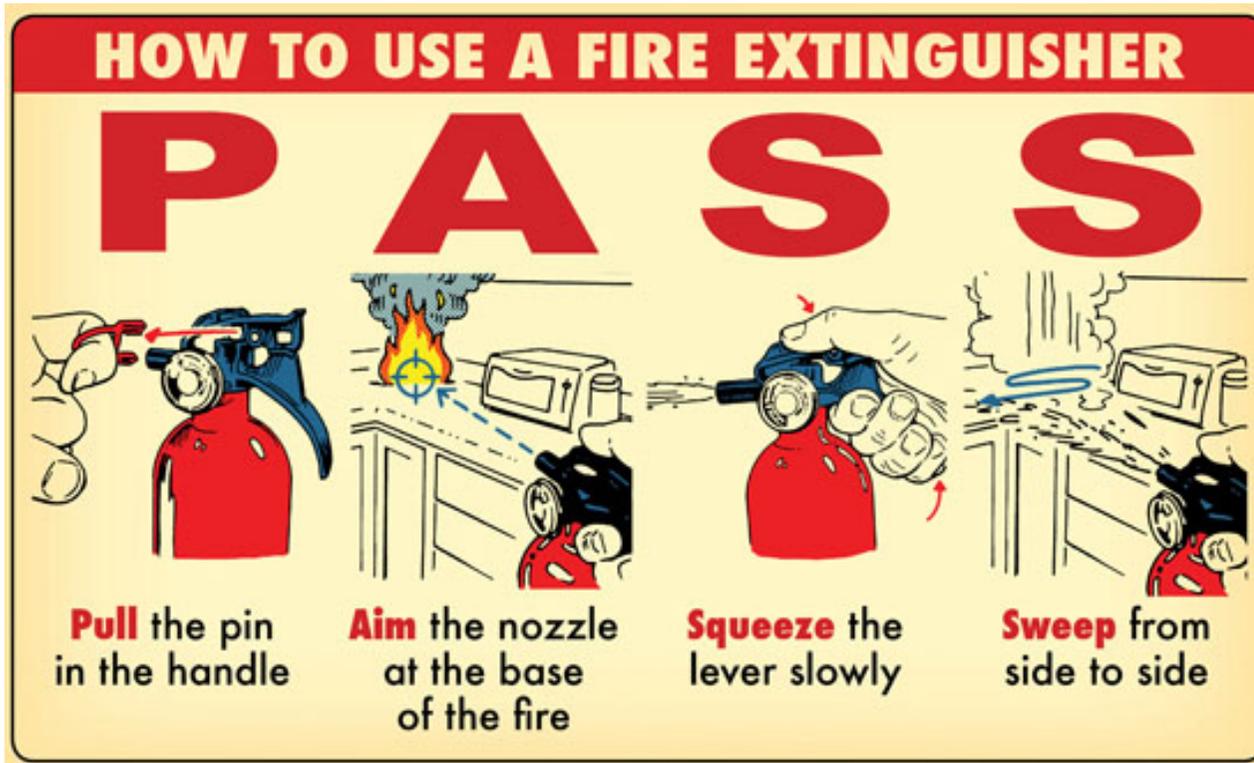
2. They are not superextinguishers

2.1 It takes 4-8 seconds to use up typical CO<sub>2</sub> extinguisher

2.2 CO<sub>2</sub> extinguisher is the cleanest and the worst among decent ones

2.3 After you use up CO<sub>2</sub> extinguisher, the oxygen comes back to the hot spot and the fire is back – and you get the panic attack :)

# Fire extinguishers: what they are



# Fire extinguishers: what they are

## Fire Extinguisher Chart

Extinguisher		Type of Fire				
Colour	Type	Solids (wood, paper, cloth, etc)	Flammable Liquids	Flammable Gasses	Electrical Equipment	Cooking Oils & Fats
	<b>Water</b>	✓ Yes	✗ No	✗ No	✗ No	✗ No
	<b>Foam</b>	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes
	<b>Dry Powder</b>	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No
	<b>Carbon Dioxide (CO2)</b>	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes

One outside solvent storage + one in chemical storage

Most common in our labs



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# Organization: whom to follow

## Evacuation leaders

### HOUSE 43:15

#### Floor 7

**Organic Chemistry:** Raimondas Mozuraitis ?

**Applied Physical Chemistry:** Jan Rosdahl (inorganic chemistry), Inna Soroka (nucleonics)

**HR:** Ann Ekqvist (both floor 6 and 7)

#### Floor 6

**Organic Chemistry:** Björn Blomqvist, Peter Dinér, Ulla Jacobsson

**Applied Physical Chemistry:** Sergey Dvinskikh (Physical Chemistry)

**HR:** Ann Ekqvist (both floor 6 and 7)

#### Floor 5

**Applied Physical Chemistry:** Catharina Silfwerbrand-Lindh (Analytic Chemistry)

**Tekniskt basår:** Ingemar Jerling





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# Organization: where to go

Keyword: **Assembly point**

## Assembly points at fire alarm

- Teknikringen 26-36 (House 43:15): The courtyard in front of the Chemistry building (Teknikringen 30)
  - Teknikringen 40/42 (House 43:17): diagonally in front of the Opera Academy, Teknikringen 35 and behind house 19
  - Teknikringen 48/50 (House 43:18):
    - Staff:** diagonally in front of the Opera Academy, Teknikringen 35 and behind house 19
    - Students and teachers / assistants present at floor 5 or 6:** Teknikringen 34 under the yellow K
  - Teknikringen 56/58 (House 43:19): diagonally in front of the Opera Academy, Teknikringen 35 and behind house 19
  - Drottning Kristinas väg 51 (Houses 90: 1): The parking lot behind the YKI house
- Remember that the fire chief may consider that we need to keep us further away from our premises. In such cases the KTH-Hallen is the assembly point for everyone.



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## Imagine there is a fire nearby...

Action sequence:

- If you hear the alarm, leave the place immediately and go to assembly point
- If you think this is false positive, evacuate anyway (even if it was you who put the fire alarm on fire with a pocket lighter)
- If you see the fire and it is small indeed, try to use the closest fire extinguisher
- Do not try to follow “*do or die*” motto – if you are unsure that you can quench the fire, do not even try
- In general case, act in accordance with “*Rescue - Warn - Alarm - Extinguish*”
- **If there is time**, gas cylinders in the same room as the fire shall be brought to safety



## What to do when you are safe

- If ambulance, fire brigade or police is needed, **call 112** first (state address and cause of the alarm). Do not rely on that someone else will do it. Typically almost nobody does. 1 minute delay kills in average 1 person.
- Then call KTH's alarm number: 08 790 77 00
- Go to assembly point and check if all your colleagues are in place
- Do not return to look for your friends – stay in safe place and try to reach them by phone to make sure they are safe
- Do not try to return to take your documents, superexpensive laptop, desktop, cell phone, jacket and so on



**Thank you for your attention!**

**P X A R**