## Department of Materials Science and Engineering 材料科學及工程學系

### Safety Regulations in Laboratories 實驗室安全規例

Accidents in laboratories could cause damage to equipment, and more seriously, injury to staff and students. However, most accidents can be avoided if the laboratory safety rules are followed carefully. Read the following rules and precautions thoroughly and make sure that you understand and abide by them. In addition, all laboratory users are bound by the Safety Policy of the City University of Hong Kong (https://www.cityu.edu.hk/fmo/studentlan/download/safetypolicy.pdf)

實驗室事故可能造成設備損壞,甚至導致工作人員和學生受傷。但是,如果使用者都遵循實驗室安全規則,大多數事故是可以避免的。請細閱以下規則和注意事項,並確保你了解並遵守這些規則。此外,所有實驗室使用者都要遵守香港城市大學的安全政策 (https://www.cityu.edu.hk/fmo/studentlan/download/safetypolicy.pdf)。

#### (A) Laboratory safety rules 實驗室的安全規則

- 1. Undergraduate students are not allowed to work in a laboratory without supervision of qualified personnel (such as academic staff, research fellows, research assistants, graduate students and technical officers). 如沒有監督人員(如教員、研究員、研究助理、研究生和技術人員)在場,本科學生不得在實驗室工作。
- 2. Laboratory coats must be worn in the laboratory. 必須穿著實驗室工作服在實驗室內工作。
- 3. Safety goggles must be worn at all times by all personnel, including visitors, in chemistry laboratories or laboratories designated for both chemistry and biology. In biology and instrument laboratories, safety goggles should also be worn by all personnel, unless a risk assessment, endorsed by the supervisor or the principal investigator, shows that the risks associated with not wearing them are acceptable. 所有人士(包括訪客)於化學實驗室及專為化學及生物而設的實驗室內,均須配戴安全眼罩。除非經督導老師或調查主任認可的風險評估報告顯示不配戴安全眼罩的風險屬於可接受程度,否則於生物及儀器實驗室內,所有人士亦須配戴安全眼罩。
- 4. Sandals, open toed shoes, shorts or skirts are not allowed. Long hair should be tied back when working in the laboratory and loose clothing kept in personal lockers. 實驗室內不許穿涼鞋、拖鞋、短褲或裙子。在實驗室工作時,必須束起長髮,及將外套等衣服放進個人儲物櫃。
- 5. Keep unnecessary personal belongings in the lockers provided at the entrance before entering the laboratory. 把不必要的個人物品放在實驗室入口處提供的儲物櫃內。
- 6. Smoking, eating and drinking are strictly prohibited in the laboratory. 嚴禁在實驗室吸煙及飲食。

7. Do not run or fool around in the laboratory. 切勿在實驗室奔跑或嬉戲。

8. Follow strictly the instructions given by lecturers and demonstrators; or instructions written in the laboratory manual. The manual must be read and understood before the start of any experiments. 嚴格遵守講師及實驗室手冊內的指示。實驗室使用者在進行任何實驗前必須閱讀和理解有關手冊。

9. Do not take away or bring any apparatus, materials or chemicals, whether used or unused, large or small, from or to the laboratory without permission.

在未經許可下,不准拿取或攜帶任何材料或化學物品離開或進入實驗室。

10. Do not touch anything in the laboratory which is not part of your experiment. 切勿觸摸不屬於你的實驗及實驗室內的物件。

11. High risk experiments that are in progress must not be left unattended. 實驗室人員必須親身監察正進行之高風險實驗。

12. Unused equipment, bags etc. must not be left on the work bench. 切勿將未被使用的設備及袋等物品留在工作台上。

13. Glassware must be washed and returned to the appropriate storage places after use. 玻璃儀器必須洗淨並放回適當的貯存地方。

14. All chemicals must be returned to the appropriate storage place after use. 所有試劑和化學品於使用後必須放回適當的貯存地方。

15. Spillage of water on the floor etc. must be mopped up immediately. 必須立即抹乾溢漏在地板上的水。

16. Do not mix chemicals unless being instructed.

除非被指示,否則不得混合化學品。

17. Keep the laboratory clean and tidy. 保持實驗室整潔。

#### (B) General precautions 一般措施

1. Keep all exits and corridors clear. Make sure you know where the nearest fire exits and escape routes are located in the laboratory area.

保持所有出口和走廊暢通。確保你知道最近實驗室區域的緊急出口和逃生通道。

2. Make sure that you know the proper way to use every piece of glassware and equipment. Ask for instructions if you are not certain.

確保你知道如何正確地使用每種玻璃及儀器設備。如有疑問,請詢問導師。

3. Never use cracked or broken glassware. Beware of "star-cracks" in flasks. 切勿使用破裂或破碎的玻璃儀器。謹防燒瓶上是否有裂縫。

- 4. General alert: all work with chemicals is potentially dangerous. 注意:處理化學品皆有潛在危險。
- 5. Never inhale or suck chemicals by mouth. 切勿用口吸入化學品。
- 6. Never work with toxic or foul smelling chemicals outside the fume hoods. Work in the correct type of fume hoods. Suitable protective equipment, such as goggles, mouth mask, face shield and proper gloves should be worn when dealing with hazardous chemicals or potentially dangerous substances. 有毒化學品或有異味的實驗要在通風櫃內進行。選擇在正確類型的通風櫃工作。處理有害化學品或有潛在危險的物質須配帶合適的防護設備,如眼罩、口罩、面罩和手套。
- 7. Dispose of waste safely in accordance with established laboratory procedures. Never dispose of organic solvents, filter paper and solid debris in sinks. In case of doubt, consult the laboratory staff. 按照既定的實驗室程序處置化學廢料。不可將有機溶劑,濾紙和固體碎片棄於水漕內。如有疑問,請諮詢實驗室工作人員。
- 8. Always point the mouth of a test tube or flask away from yourself and others while carrying out any chemical experiments. 進行任何化學實驗時, 切勿將試管口指向自己或其他人。
- 9. Turn off the bunsen burner immediately after you have finished using it. Before lighting the flame, check that no flammable chemicals are being used nearby. 使用完本生燈後立即關閉。開著火前,要檢查附近有沒有正在使用的易燃化學品。
- 10. Wash your hands thoroughly before leaving the laboratory. 離開實驗室前要徹底洗手。
- 11. Know the locations of the safety showers and eye washing stations, and how to operate them. 清楚知道安全淋浴器和眼睛清洗站的地點,以及它們如何運作。
- 12. Report all accidents, spillages, breakages and injuries immediately to laboratory staff, immediate supervisor, safety officer and head of department when they occur. 若發生溢漏、破損或受傷事故,立即通知實驗室工作人員、直屬上司、安全主任和部門系主任。
  - \* A person who persistently breaks these rules will be banned from the laboratories. \*
  - \*不遵守上述規則人士將被禁止進入實驗室。\*

In the event of:

如發生下列事件:

Fire 火警 : Students should not attempt to put out a fire. Alert your immediate supervisor or a laboratory technical officer at once. If your clothing is on fire, roll on the floor to put it out. If the fire blanket is within reach when you discover you are on fire, first pull the blanket around yourself and then roll on the floor.

學生不應試圖滅火。如遇火警,立即通知上司或實驗室技術人員。如果你的衣服著火,立刻滾在地上。如果有滅火毯在附近,將滅火毯包著自己,然後滾在地上。

Experiment out of control 實驗失控

: Alert your immediate supervisor or a laboratory technical officer immediately. Do not attempt to control it yourself.

立即通知上司或實驗室技術人員。不要試圖控制實驗。

Chemical Spillage 化學品溢漏 : Alert your immediate supervisor or a laboratory technical officer immediately. Tell her/him the nature of the spillage. 立即通知上司或實驗室技術人員。告訴她/他溢出化學品的性質。

Emergency telephone 緊急電話 : Call the Security Counter at the first opportunity (extension 8888). 立即致電保安室(內線 8888)。

In case of accident 如發生意外

• Switch off all electrical, water and gas supplies. 關掉所有電源, 水源和煤氣掣。

• Stop your experiment. 停止實驗。

• Make sure that all the safety precautions are taken. 確保做足所有的安全預防措施。

• Then leave through the nearest fire exit. 利用最近的走火通道離開。

• Do not use the lift! 切勿使用電梯!

• Raise the alarm by breaking the fire alarm/security glass and shout for help.

打破火災警報/安全玻璃提出警報和高聲求助。

RED BOX : FIRE ALARM 紅色方盒: 失火警報

GREEN BOX: SECURITY ALARM

綠色方盒:安全警報

PLEASE SIGN THE ATTACHED PARENTAL CONSENT FORM and return it to the General Office of Department of Materials Science and Engineering (Address: Room R7112, Lift13, 7/F, Bank of China (Hong Kong) Complex)

請簽妥夾附的家長同意書並交回材料科學及工程系辦公室(地址:中國銀行(香港)綜合樓 **7** 樓 **R7112**室)。

## **Department of Materials Science and Engineering**

材料科學及工程學系

### **Safety Regulations in Laboratories**

實驗室安全規例

# Parental Consent Form for Students under the Age of 18 家長同意書

(適用於未滿18歲之學生)

I have read and understood fully the statements listed in the 'Safety Regulations in Laboratories' conducted by the College of Science and Engineering, and I would remind the student to follow these instructions.

本人已閱讀並完全明白科學及工程學院於實驗室安全規例所列出的各項條文,本人亦會提醒學生遵守有關指引。

Name of Student 學生姓名	Family name 姓	First name(s)名
Student Number 學生編號		
Name of Parent/Guardian 家長/監護人姓名	Family name 姓	First name(s)名
Signature of Parent/Guardian 家長/監護人簽名		
Date 日期		