

Exp. 18.小組作業實驗報告注意事項

1. Exp. 18.為組別報告，請各組上傳一份
2. 請於 11/8 (一)晚上 23 時前，以 PDF 檔上傳至 NTU COOL
3. 報告請以行距 1.0、字型大小 12 製作，參考格式如下:

Exp. 18.植物色素萃取、分離及其吸收光譜實驗報告

組別:

組員學號:

組員姓名:

實驗目的:

實驗結果:

植物色素的萃取、分離:

1. 放上 TLC 結果圖並標示各色素
2. 計算 chlorophyll a, chlorophyll b, carotene , xanthophyll 的 Rf 值

植物色素之吸收光譜:

1. 記錄各波長的 OD 值
2. 以波長為橫軸，OD 值為縱軸，用 EXCEL 或其他軟體，畫出菠菜光合色素的吸收光譜
3. 請根據測量的結果，並參照課本公式計算葉綠素 a、葉綠素 b 含量及葉綠素總量 (需寫出計算公式)

實驗討論:

植物色素的萃取、分離

1. 造成色素分離後距離不同的原因
2. (自行補充其他討論)

植物色素之吸收光譜:

1. 請問色素主要的吸收高峰位在那段波長範圍中?
2. (自行補充其他討論)

Exp. 18. Notes for experiment report

1. **Exp. 18. is a group report, please upload a copy for each group**
2. **Please upload the report as PDF files to NTU COOL before 11/8 (Mon.) 23:00**
3. **Please make the report with 1.0 line spacing and 12 font size, the format is as follows**

Exp. 18. Plant pigment extraction, separation and its absorption spectrum experiment report

Group:

Student ID of group members:

Name of group members:

Purpose:

Results:

Plant pigment extraction and separation:

1. Put on the TLC result and label each plant pigment.
2. Calculate the R_f value of chlorophyll a, chlorophyll b, carotene and xanthophyll.

The absorption spectrum of Plant pigment:

1. Record the OD value of each wavelength.
2. Use the wavelength as the horizontal axis and the OD value as the vertical axis, drawing the absorption spectrum of the pigment with EXCEL or other software.
3. Please calculate the content of chlorophyll a, chlorophyll b and the total amount of chlorophyll based on the results of the measurement and refer to the textbook formula (the calculation formula needs to be written)

Discussion:

Plant pigment extraction and separation:

1. Reasons for the different distances after separation of pigments.
2. (other discussions)

The absorption spectrum of plant pigment:

1. In which wavelength range is the main absorption peak of the pigment?
2. (other discussions)