

# 化工系拉曼光譜儀 (Raman Spectrometer) 使用申請單

No. \_\_\_\_\_

申請日期： 年 月 日 時

測試日期： 年 月 日 時 至 年 月 日 時

實驗條件：1.雷射功率(mW)、樣品峰值位置( $\text{cm}^{-1}$ ):

2.曝光時間(exposure time) 以及掃描圈數(accumulation):

3. Sample Types : Solids Powders Liquids Others

待測樣品: \_\_\_\_\_

自備零件及藥品：KBr、拭鏡紙、夾子、載玻片、全新光碟(避免電腦無法存檔)

1.使用者對儀器之熟稔情形：

- 首次使用需Superuser協助或教學；
- 非首次使用仍需Superuser協助或教學；
- Superuser考核；
- 可獨立操作之使用者；

2. 借用人 在借用期間若因操作不當造成儀器或其配件損壞，並影響後續使用者之借用權益，需自行負擔相關賠償責任”

3. 使用前先於「儀器保養維護記錄簿」登記，使用後務必確實清潔並將儀器及其配件歸位。初次違規者，將停止個人使用權一個月；如再犯，將視情節加重處分，停權期間可能為一學期、一年，甚至永久停止使用。違規情節嚴重者，亦可能連帶影響該實驗室之使用權限。

4. 測固體樣品，與KBr混合打片時，KBr pellet die使用應謹慎，以免造成損壞。

6. 測液體樣品，需要先與儀器負責老師約時間看樣後才能使用，以免洩漏造成損壞。

7. 本系使用者需繳儀器維修基金：自行操作（具 B 級執照）每小時200元；若為樣品委託操作，每小時680元。一年度繳滿20,000元者，則該年度內不需再行繳交。關於儀器維修基金之繳交，本系使用者得於繳費通知單發出後兩個月內繳清。未繳清前，不得再借用該儀器。校內外系每小時1000元，校外研究單位每小時2000元，校外營利機構每小時2500元，以上費用另加收280元/小時（委測/教學）。此外，不分校內外單位，開機使用未滿1小時仍收1小時基本費。

8. 於使用時間內如超過24小時不使用，應通知技術員，否則即取消該次使用權利，且照常收費，並縮短其往後登記使用該儀器之最長期限。

9. 嚴禁自行移動儀器任何元件，由技術員或Superuser操作。違者，禁止再使用儀器。

\*本儀器目前負責之Superuser為 陳冠銓和林筱芸 (E2-804)

\*本儀器目前負責之老師為 楊延齡 (E2-504)

本人已詳閱並同意上述內容並願遵守精密儀器及常用設備管理辦法。

借用人簽名： \_\_\_\_\_

指導教授簽名： \_\_\_\_\_

儀器負責老師意見及簽名： \_\_\_\_\_

外系或外校申請者，請化工系主任簽名： \_\_\_\_\_

## Application Form for Use of Raman Spectrometer

Registration date (Month/Date/Year): \_\_\_\_\_

Registration time: \_\_\_\_\_

Analysis details:

1. Laser power (mW) · Peak position of sample (cm<sup>-1</sup>)

2. Exposure time and Accumulation:

3. Sample Types : Solids Powders Liquids Others

Essentials self-prepared by the user: KBr, lens cleaning paper, clips, glass slides, and a brand new CD (to avoid data loss due to computer limitations)

Test sample:

1. User's proficiency level regarding instrument use:

First-time user requiring assistance or training from a Superuser;

Non-first-time user still requiring assistance or training from a Superuser;

Qualification;

User capable of operating the instrument independently;

2.  If the borrower causes damage to the instrument or its accessories due to improper operation during the borrowing period, thereby affecting the borrowing rights of subsequent users, the borrower shall be solely responsible for any resulting compensation.

3. Be sure to take a record of the usage in the register before operating the instrument. Be sure to thoroughly clean the equipment and return it and its accessories to their proper places after use. First-time offenders will have their individual usage privileges suspended for one month; repeat offenders will face more severe penalties depending on the circumstances, with suspensions ranging from one semester to one year, or even permanent suspension. Serious violations may also result in the revocation of the laboratory's usage privileges.

4. When testing solid samples, the KBr pellet die should be used with caution when mixed with KBr to avoid damage.

5. When testing liquid samples, prior consultation and appointment with the faculty in charge are required to review the samples before use, so as to avoid leaks and damage.

6. Rates for instrumentation usage:

(1) Ch. E., NTUST users: Self-operation (with a Class B license) costs NT\$200 per hour; for commissioned testing, NT\$680 per hour. Maximum charges for an academic year: 20,000 NT dollars. NO reservation will be allowed if the charged fees of the previous year are not paid off within the first two months after notification.

(2) Users from other NTUST departments: 1000 NT dollars/hr + NT\$280 per hour (assisted testing / instructional use)

(3) User from other institutions: 2000 NTD (research unit) + NT\$280 per hour (assisted testing / instructional use). 2500 NTD (industry) dollars/hr + NT\$280 per hour (assisted testing / instructional use)

(4) A minimum charge of one hour will be applied for each use, regardless of whether the user is internal or external, even if the actual usage time is less than one hour.

7. If the instrument is not used for more than 24 hours within the designated usage time, the technician must be notified. Otherwise, the usage right will be cancelled, and the normal charges will apply, and the maximum registration period for future use will be shortened.

8. It is forbidden to move component of the instrument. Any movement must be performed by the technician or superuser. Violators will be prohibited from using the instrument again.

I have read and agree to the above terms and undertake to comply with the Regulations on the Management of Precision Instruments and Common Equipment.

User's signature: \_\_\_\_\_

Advisor's Signature: \_\_\_\_\_

Signature and comment from Professor-in-charge of the instrument: \_\_\_\_\_

Signature of the chairman of the Chemical Engineering Department: \_\_\_\_\_

(Required for applicants from departments/institutions other than Chemical Engineering)