

國立台灣科技大學場發射穿透式電子顯微鏡實驗室使用儀器設備申請表
Field Emission Gun Transmission Electron Microscopy User Request Form

申請單位 Department		申請學生 Applicant		分機 Extension no.e		教授簽章 Supervisor's signature	
				手機 cellphone			
申用儀器 Equipment Using	<input type="checkbox"/> FEI Tecnai™ G2 F-20 S-TWIN FEG-TEM <input type="checkbox"/> FEI (Thermo Fisher Scientific) Talos F200XG2 FEG-TEM						
儀器認證級別 Certification	<input type="checkbox"/> : 取得認證、相關課程學分者可自行操作 Yes, I have qualified the certification of operating this equipment. <input type="checkbox"/> : 未經取得認證須有符合自行操作人員陪同操作 No, I have not yet qualified the certification of operating this equipment. I will use it with qualified.						
使用時間 Time	年 月 日 時至 時 yy mm dd o'clock to o'clock 預約時間(小時)Reserved time(Hours):						

說 明：

一、本實驗室各項儀器設備包含有高電壓、高真空抽氣系統、冷卻循環系統等，進入本實驗室務須嚴守相關安全事項。

The instruments in this laboratory contain high voltage and high vacuum systems, circulation cooling system.....etc. Please strictly follow the safety regulations of this laboratory.

二、本項儀器使用者採證照制度，具有合格使用資格者方能自行操作儀器設備。擅自操作導致機台毀損，需自付維修費。

Certificate is required for using this equipment. Only the person who passed the certification of operation can use this equipment on his/her own. If violating the lab rules and causing damages, you will be asked to pay the maintenance fee.

三、儀器使用時間合格操作人員必須全程在場，並攜帶身份證明文件備查，若否實驗室將停權一個月。

Qualified user should present throughout the using period and prepare personal ID for check. If not, the laboratory will be suspended for a month.

四、試片載台必須保持清潔，以防止汙染

Sample stage must be clean at all times to prevent pollution.

五、取樣應注意事項 sample preparation note:

1. 尺寸:最大直徑Φ0.3cm。

Sample Max.size is Φ0.3cm.

2. 試片必須保持乾燥及乾淨。

Sample needs to be dry and clean.

3. 限制使用TEM機台之材料。

Sample restriction :

a. 磁性材料，如鐵、鈷、鎳等。

Magnetic materials ,iron, cobalt , nickel is not allowed.

b. 有機物、高分子、粉末等電子束照射下會分解或釋出氣體材料。

Polymer, organism will be decomposed during Ebeam action.

c. 低熔點的物質。

Low melting point materials.

d. 目前以無機試片為主，高分子、生物這方面的試片請先告知管理員。

Polymer, organism material must discuss with operator first.

六、試片進入FEG-TEM真空腔內，若無法於10分鐘內到達 10×10^{-10} Torr或觀察試片時壓力下降，真空系統出現不穩定狀態，為避免毀損真空系統及偵測器，試片將被取出，並結束實驗。

Sample will be moved out from chamber when pressure is not under 10×10^{-6} Torr in 10 mins.in order not to damage the vacuum system.

七、如果有實驗需求特殊操作時段，請於申請時註明。

If there are special time requirements, please note on the request form.