CMNST Facilities and Price for Class/Operation/OEM Service

Note: You have to take/pass the Safety Training Class before operating the equipments.

Updated: 2018/01/23

★ Nanolithography

<table>
<thead>
<tr>
<th>電器名稱</th>
<th>Equipment</th>
<th>設備名稱</th>
<th>Equipment</th>
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<tbody>
<tr>
<td>1101</td>
<td>電子束微影系統 (Electron Beam Lithography System)</td>
<td>1101</td>
<td>電子束微影系統 (Electron Beam Lithography System)</td>
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<tr>
<td>1102</td>
<td>雙面對準/UV 光感奈米壓印 (Double-Side Mask Aligner/UV Imprinter)</td>
<td>1102</td>
<td>雙面對準/UV 光感奈米壓印 (Double-Side Mask Aligner/UV Imprinter)</td>
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<td>1103</td>
<td>單面光罩對準機 (Single-Side Mask Aligner)</td>
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<td>單面光罩對準機 (Single-Side Mask Aligner)</td>
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<td>1105</td>
<td>CO₂雷射雕刻系統 (CO₂ Laser Micro-Machining System)</td>
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<td>CO₂雷射雕刻系統 (CO₂ Laser Micro-Machining System)</td>
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<td>1106</td>
<td>旋轉塗佈儀 (Spin Coater) + 1203</td>
<td>1106</td>
<td>旋轉塗佈儀 (Spin Coater) + 1203</td>
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<tr>
<td>1107</td>
<td>旋轉塗佈儀 II (Spin Coater II) + 1203</td>
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<td>旋轉塗佈儀 II (Spin Coater II) + 1203</td>
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<td>1201</td>
<td>反應式離子蝕刻機 (Reactive Ion Etching)</td>
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<td>反應式離子蝕刻機 (Reactive Ion Etching)</td>
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<tr>
<td>1202</td>
<td>奈米深蝕刻系統 (感應耦合離子電漿) (Inductive Coupled Plasma Etching System)</td>
<td>1202</td>
<td>奈米深蝕刻系統 (感應耦合離子電漿) (Inductive Coupled Plasma Etching System)</td>
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<td>1203</td>
<td>化學濕式操作台 (Chemical Wet Bench) (Clean, Organic, Acid, Alkaline Processing)</td>
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<td>化學濕式操作台 (Chemical Wet Bench) (Clean, Organic, Acid, Alkaline Processing)</td>
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<td>1204</td>
<td>化學藥品儲藏櫃 (Chemical Storage Cabinet)</td>
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<td>化學藥品儲藏櫃 (Chemical Storage Cabinet)</td>
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<td>1205</td>
<td>金屬蝕刻系統 (感應耦合離子電漿離子蝕刻機) (ICP RIE System)</td>
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<td>金屬蝕刻系統 (感應耦合離子電漿離子蝕刻機) (ICP RIE System)</td>
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<td>1206</td>
<td>光罩清洗 (Mask cleaning)</td>
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<td>光罩清洗 (Mask cleaning)</td>
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<td>項目</td>
<td>設備名稱</td>
<td>Equipment</td>
<td>自行操作</td>
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<td>1301</td>
<td>晶圓切割機 (Wafer Cutting Machine)</td>
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<tr>
<td>1302</td>
<td>Nano Hot Embosser</td>
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<tr>
<td>1303</td>
<td>二氧化碳超臨界乾燥機 (CO2 Supercritical Dry Release Machine)</td>
<td>350</td>
<td>525</td>
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<td>1304</td>
<td>Wire Bonding</td>
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<td>1307</td>
<td>Gel Box</td>
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<tr>
<td>1308</td>
<td>玻璃藍寶石切割</td>
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★Epitaxy & Nanosurface

<table>
<thead>
<tr>
<th>設備名稱</th>
<th>Equipment</th>
<th>自行操作</th>
<th>Self-Operation</th>
<th>代工</th>
<th>OEM</th>
<th>課程費</th>
<th>Class</th>
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<tbody>
<tr>
<td>2101</td>
<td>Plasma-Assisted Molecular Beam Epitaxy System</td>
<td>5000</td>
<td>7500</td>
<td>9000</td>
<td>13500</td>
<td>10000</td>
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<td>2102</td>
<td>E-beam Evaporator I</td>
<td>900 (target included)</td>
<td>1350</td>
<td>1900</td>
<td>2850</td>
<td>2500</td>
<td>3700</td>
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<tr>
<td>2103</td>
<td>E-beam Evaporator II</td>
<td>900 (target included)</td>
<td>1350</td>
<td>1900</td>
<td>2850</td>
<td>2500</td>
<td>3700</td>
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<tr>
<td>2104</td>
<td>Magnetron Sputter Deposition System</td>
<td>700 (target excluded)</td>
<td>1050</td>
<td>1700</td>
<td>2550</td>
<td>2500</td>
<td>3700</td>
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<tr>
<td>2105</td>
<td>Co-Sputter Deposition System</td>
<td>800 (target excluded)</td>
<td>1200</td>
<td>1800</td>
<td>2700</td>
<td>3500</td>
<td>6600</td>
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<td>2106</td>
<td>Parylene Vapor Deposition System</td>
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<td>225</td>
<td>1100</td>
<td>1650</td>
<td>500</td>
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<td>2108</td>
<td>3 Inch Chemical Vapor Deposition for Graphene</td>
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<td>2109</td>
<td>1 &amp; 2 Inch Chemical Vapor Deposition for Graphene</td>
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<td>2201</td>
<td>Surface profilometer (Alpha-Step Profilometer)</td>
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<td>2202</td>
<td>Atomic Force Microscope, NTMDT-AFM</td>
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<td>1300</td>
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<td>2204</td>
<td>Scanning Probe Microscope, SPM</td>
<td>900</td>
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<td>1350</td>
<td>1600(with stylus)</td>
<td>2400(with stylus)</td>
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<td>2205</td>
<td>Measurement Station for Electrical Characterization</td>
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<td>Nano-Indentation System I, MTS XP</td>
<td>600</td>
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<td>900</td>
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<td>2302</td>
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<td>2303</td>
<td>Micro/Nano Tensile Tester</td>
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**Nanomaterial Analysis**

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<th>No.</th>
<th>Equipment Name</th>
<th>Academic</th>
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<th>A. Special</th>
<th>Industry</th>
<th>I. Special</th>
<th>Class</th>
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<tr>
<td>3101</td>
<td>Double Beam Focused Ion Beam Analysis System I</td>
<td>1800</td>
<td>1500</td>
<td>2250</td>
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<td>TEM sample</td>
<td>EDS</td>
<td>omni probe</td>
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<td>(Dual Beam-Focused Ion Beam I, FEI Nova-200)</td>
<td>1800</td>
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| 3102 | 精密離子拋光機 (PIPS) + 3104研磨拋光機 (Grinder and Polisher) |
| 3103 | 鍍金機 (Sputter Coater) |

| 3104 | 研磨拋光機 (Grinder and Polisher) |
| 3105 | 雙束型聚焦離子束 II (Dual Beam-Focused Ion Beam II, Helios G3 CX) |

| 3201 | 高解析熱場發射掃描式電子顯微鏡 I (FE-SEM I w EDS/CL, JEOL JSM-7000F) |
| 3202 | 高解析熱場發射掃描式電子顯微鏡 II (FE-SEM II w EDS/EBSD, JEOL JSM-7001F) |
| 3203 | 可變真空掃描式電子顯微鏡 (Variable Pressure SEM w Probe, Zeiss EVO 50) |
| 3204 | 桌上型掃描式電子顯微鏡 (Tabletop SEM) |

<p>| 3301 | 穿透式電子顯微鏡 (TEM, JEOL JEM-2010) |
| 3302 | 高解析場發射掃描穿透式電子顯微鏡 (FE-TEM w EDS/EELS, JEOL JEM-2100F) |
| 3303 | In-Situ奈米壓痕試驗機 (In-Situ Nano-Indentation System @ TEM) |</p>
<table>
<thead>
<tr>
<th>Camera</th>
<th>Nondestructive Analysis</th>
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</thead>
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<table>
<thead>
<tr>
<th>設備名稱 Equipment</th>
<th>自行操作 Self-Operation</th>
<th>代工 OEM</th>
<th>課程費 Class</th>
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<td>4103</td>
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<td>100/24hr</td>
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