# **Department of Physics**

# **Atomic resolution microscopy and surface science**

My research interest mainly focus on the surface physics and chemistry · Surface atomic and molecular dynamics. Recent achievement is in preparation and characterization of singleatom tips. We have carried out various of single-atom tips, such as: Noble metal covered W or Mo (111) tips,. Active gases induce Ir (210) tips, and so on.

#### Techniques used in study

Field Ion Microscope(FIM); Scanning Tunneling Microscope (STM); Low Energy Electron Diffraction (LEED); Evaporation Deposition.

**Tsu-Yi Fu**, Professor Department of Physics phtifu@ntnu.edu.tw

### **Background:**

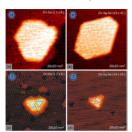
PhD in Physics, National Taiwan Normal University

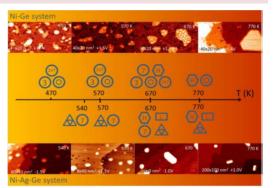
#### **Funding:**

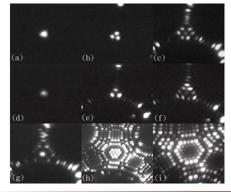
Ministry of Science and Technology National Taiwan Normal University



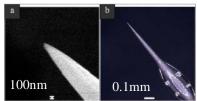
Shape control of nanosized islands in synthesis







Growth and application of single atom tips



## **Publications** (corresponding author)

- "Shape of Ni-containing nanoislands grown on an Ag-terminated Ge(111) surface" (2020), Surface & Coatings Technology, 398, 126079.
- "Single crystalline silicene consist of various superstructures using a flexible ultrathin Ag (111) template on Si (111)" (2018), Semiconductor Science and Technology, 33, 75004.
- "Direct view of silicon initial growth on metal surfaces" (2016),
  Thin Solid Films, 618, 81-83.