THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

University Research Facility in Materials Characterization and Device Fabrication
材料與器件中心實驗室

UMF Equipment – MultiBeam SEM-FIB System

SEM &FIB imaging, TEM sample preparation and EBL

The JIB-4501 is a MultiBeam processing system that incorporates a thermionic SEM and a high-performance Ga ion column. The instrument can be used as a SEM system to observe specimen surfaces; or section milling of a region using FIB can be performed. The JIB-4501 column arrangement has been designed so that a cross section that has been milled using the FIB can be observed with the SEM without changing the stage tilting angle. The FIB with Pt deposition cartridge can be used for fine milling and TEM thin-film sample preparation. The post picking up system with optical microscope is equipped for sample transfer. A third-party software with nano pattern generation system (NPGS) for electron beam lithography (EBL) is also equipped.

Features:

- Ga liquid metal ion source
- 1 to 30 kV (in 5 kV steps)
- Up to 60 nA (at 30 kV)
- 12 steps (motor drive)
- Pt deposition cartridge
- Rectangle, line, and spot milling
- Bulk-specimen 5 axis goniometer stage

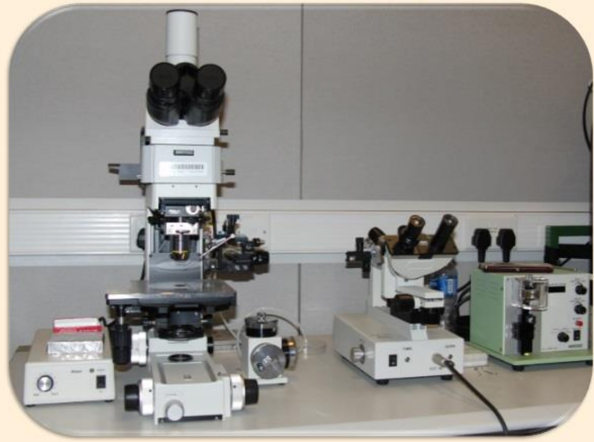
Please refer to:

https://www.jeol.co.jp/en/products/detail/JIB-4501.html & https://www.jcnabity.com/usernote.htm

for further details of the system.

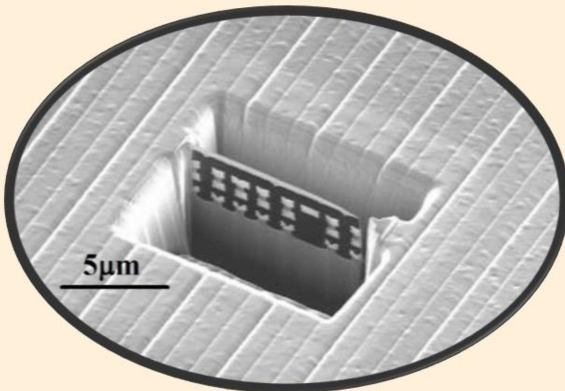
For any enquiry, please contact Dr. Wei Lu (Tel: 34002077; Email: wei.lu@polyu.edu.hk).

JIB-4501

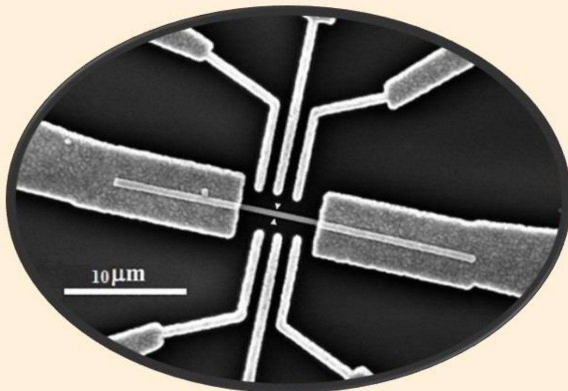


PICKING UP SYSTEM

Applications:



TEM Sample Preparation



Electron Beam Lithography