Sample Processing Equipment Using Micro-sampling Method

Purpose: This is a sputtering processing equipment that can excavate in arbitrary form using a focused gallium ion beam and can observe a sample surface by a scanning ion microscope. It is possible to create the thin piece sample for not only transmission electron microscope observation but also other purposes. In the case of sample processing for TEM observation, this equipment has the greatest advantage in that it can process from arbitrary parts in a sample.

Main specifications:

Equipment composition

- Main part of FIB equipment
- Control part
- TEM holder sets
- Deposition equipment
- Finish processing equipment

Detail specifications for the FIB equipment

Ion source	Ga (Gallium)
The maximum accelerating voltage	30kV
Accelerating voltage	5kV steps from 5kV to 30 kV
Resolution of secondary electronic image	Less than 4 nm at the maximum accelerating voltage.
Available current	The minimum current is less than 0.15pA. The maximum current is more than 20nA
The maximum current density	More than 30A/cm^2 at the maximum accelerating voltage
Sample room	The sample stage with an Eucentric method Corresponding to samples of 50mm square and 12mm thick
Sample extraction	Extraction of the minute area from arbitrary parts in a sample Fixation on the mesh with the chip for the TEM observation

Location and Data of Installation

Yokosuka Campus, February 2005

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