

FY2021 Nanotech Career-up Alliance

Advanced Course for Electron Beam Lithography / Kyoto University

In the most-advanced semiconductor devices and MEMS, the requirement for nanoscale patterns have become important. The key technology to meet the requirement is the electron-beam lithography which can draw the fine patterns in the nanometer order.

This course is intended for intermediate participants of Electron-beam Lithography. The participants will learn the advanced knowledge about electron-beam lithography technologies through the designing complex devices by CAD, exposing the pattern (multilayer resist/superposition drawing) on silicon wafers with oxide film by the most-advanced electron-beam lithography equipment.

■ Number of Participants:

3 persons (Max.)

■ Time and Period:

From March 7 (Mon.) to March 9 (Wed.), 2022

(Total 2.5 days: Lecture: 0.5 days, Practice: 2 days)

■ Venue:

Nanotechnology Hub, Kyoto University

#327 Faculty of Engineering Engineering Science Depts Bldg.

Yoshida Honmachi, Sakyo-ku, Kyoto

URL: <http://www.nanoplat.cpier.kyoto-u.ac.jp/access/>

■ Contents:

Day 1 – March 7 (Mon.), Afternoon

- (1) From the fundamentals to advanced knowledge of electron-beam lithography (lecture)
(Introduction, Equipment, Drawing methods, Process, Alignment, and Proximity effect correction)

Day 2 – March 8 (Tue.)

- (2) Pattern design by CAD
- (3) Treatment before exposure – Photoresist application, etc. (practice)
- (4) Drawing patterns using multilayer resist (practice)

Day 3 – March 9 (Wed.)

- (5) Metal deposition (practice)
- (6) Observation of drawing pattern by SEM (practice)

■ Tuition:

14,000 JPY

■ Contact:

CUPAL Secretariat,

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