VEECO Ion Mill

Manager: Jerry Drumheller  Work Phone 254-4859
Backup: Rob Ilic  254-4894

Calls to staff phones will be automatically forwarded to their cell phones during accessible hours. At other times leave a message or send them an email.

Safety
- No unusual hazards during normal operation
- No buddy system restrictions imposed on normal operation

Process Restrictions
Material Restrictions
- Samples up to 3 inch diameter. (4” possible)

Parameter Restrictions
- Beam current will be at least 40 mA.
- Check with machine manager before using beam voltage less than 400V or greater than 700V, or before turning down the magnet voltage.

Scheduling / Sign-up Restrictions
- Maximum 4 hour block reservations anytime
- Maximum 12 hours reserved in advance at any time per person
- No consecutive research group reservations
- Users/Groups may use any amount of unreserved time
- Additional individual restrictions may be imposed to maximize effective use

Requirements (Do Every Time)
- You must remain at the machine while the beam is on.
- Keep chamber and stage parts clean and free of grease.
- Clean any grease from tools and accessory equipment.
- Leave the vacuum system under high vacuum.

Prohibitions (Never Do)
- Unauthorized materials or wafers, check with machine manager.
- NEVER Close the chamber, or rotate the stage with loose clips on the stage.
- NEVER Leave tools, and machine parts, and controls greasy.

Common Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Root Cause</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Resist over heated</td>
<td>Beam on too long.</td>
<td>1) Use shorter beam on time.</td>
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<td>2) Check to be sure there is a good heat path from sample to stage.</td>
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Other Comments or Cautions
- Dow Corning 340 grease is commonly used for thermal conduction.
- OK to call Machine manager (at Home) about malfunctions, Before 10:00 pm. and after 9:00 am (weekends).