

June 30, 2006

Dear MiRC Cleanroom User PIs:

As many of you know, two years ago, the MiRC installed a state of the art electron beam lithography (EBL) tool in the MiRC cleanroom, This instrument (a JEOL JBX 9300FS) is an extremely powerful tool that has demonstrated sub-7 nm feature definition by the MiRC research engineers. The MiRC system is one of only 2 university JBX 9300FS tools in the US (the other is at Cornell) and its presence at Georgia Tech (along with the MiRC's Obducat nanoimprinter) offers our users an unfair advantage in just about any endeavor involving nanometer lithography and patterning. This EBL tool has been made widely available to the MiRC community and many users, including undergraduate and graduate students, have been trained and allowed to use the JBX 9300FS entirely on their own.

During these 2 years the MiRC has not attempted to recover the costs of user access to the JBX 9300FS. However, the costs of supporting this tool can no longer be borne by the general user fees for MiRC cleanroom or from the MiRC state funds. Therefore, beginning July 1, 2006, use of the JBX 9300FS will be charged according to the following cost recovery rate structure:

Direct Costs:

- \$130 per hour for universities
- \$975 per hour for industry
- \$52 per hour for MiRC staff operator time (prep work, technical consultation, processing, and machine operation), no charges will be made for ordinary levels of user training
- \$15 per hour for any MiRC staff operator time that requires cleanroom activity
- Special supplies billed at cost

Indirect cost rates for developing budgets for external users in FY2007 will be:

- 36.3% for University System of GA (USG) institutions
- 50.3% for non-USG Universities and non-DOD federal
- 53% for DOD
- 54.6% for Industry

These cost recovery rates were generated by the cost data that we have been collecting and they are comparable to other rates for similar equipment at other academic sites. Industrial rates will only be applied to outside industrial users of the JBX 9300FS. If you are member of the Georgia Tech community and are carrying out a sponsored project with an industrial sponsor, the 9300FS charges will be calculated according to the university cost recovery rate (of \$130/hour). No staff or tool charges will be made for ordinary levels of user training

The billable times are calculated using the beginning and end times as defined below:

"Beginning" shall be determined from one of the following items, whichever occurs first.

- 1) Beginning of reservation time on Grover scheduler
- 2) Card swipe logging into JBX 9300FS at buzzcard access controller
- 3) 15 minutes prior to job pattern writing start time

"End" of job shall be determined from one of the following items, whichever occurs last.

- 1) End of reservation time on Grover scheduler
- 2) Card swipe logging out of JBX 9300FS at buzzcard access controller
- 3) 5 minutes after job pattern writing end time

The projects carried out on the MiRC EBL tool have been original, challenging, and important, all because of the efforts of the PIs and their cleanroom users. This high caliber research makes investments in fabrication tools such as the JEOL JBX 9300FS all the more worthwhile. The MiRC looks forward to supporting this and all other research by members of the MiRC user community.

Please contact me if you have any questions on this matter.

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