

PRISM Imaging and Analysis Center

News Letter, Fall 2009

Dear IAC users and friends,

Here I am writing to tell you the news from PRISM Imaging and Analysis Center (IAC) at Princeton University. The IAC has been constantly making strides in contributing to education and research at Princeton and improving its support to the local community. Over the past year, we have put substantial investment into the IAC. Namely we acquired a Bruker D8 Discover, high-resolution X-ray diffractometer with monochromator, high-precision two-circle goniometer, and accessories for reflectometry, grazing incidence diffraction and texture measurements, and microdiffraction (PI: Jim Sturm). We also received a major NSF-MRI award (PI: George Scherer) to acquire a new FEI Quanta field-emission-gun environmental-SEM with a full analytical capability to conduct EDX, WDX and EBSD. At the beginning of this year, we purchased a state-of-the-art dimension NanoMan AFM system with both



Bruker D8 Discover XRD

FEI Quanta 200 F-ESEM

Harmanix and TUNA/CAFM attachments with a NSF-MRSEC-PCCM equipment grant (PI: Rick Register). All these equipments have been completed in installation and are now fully functional for usage.

To accommodate with these instruments, we have developed new short courses in addition to existing ones. All courses are offered free of charge on a regular base and provide effective pathways for users to access to the web based calendar sign-up system and utilize IAC equipments. We also offer expert assistance through the online "assisted use" request (https://iac.princeton.edu/assist-me.php).

We have been striving to keep down the hourly cost for equipment use while maintaining a healthy balance in the center's operation expenses. We recently completed a benchmarking analysis nationwide to compare the internal tool usage fees for like IAC tools at other shared-use academic and US federal government managed facilities (21 in total). In all cases IAC fees (which have not been increased since 2002) were significantly below the average fees charged to academic users at the other facilities. We have formulated a two-year plan to adjust the user fees for a subset of tools in the IAC. The following table lists the tools, the external academic user fee average, and the current and adjusted internal usage fees, for those specific tools. We note that even after the two years, the rates will remain below today's average rate at the other facilities. The adjusted fees are scheduled to take effect 9/1/09 and will remain in place through FY 2011.*

	Sample Prep. tools	SEM/TEM	XRD/AFM	HRTEM	FIB
Survey average	\$35.5/hr	\$40.5/hr	\$40.5/hr	\$57.5/hr	\$57.5/hr
IAC current rate	\$5/hr	\$25/hr	\$25/hr	\$45/hr	\$50/hr
2009-10 adjusted rate	\$10/hr	\$30/hr	\$25/hr	\$45/hr	\$50/hr
2010-11 adjusted rate	\$15/hr	\$30/hr	\$30/hr	\$50/hr	\$55/hr

* Normal multipliers to rates are applied for outside user as described on the IAC website, http://www.princeton.edu/~iac/iac-rates-nov02.htm.

In closing, let me again express our hope that you stay connected to the IAC – in particular: come Princeton to utilize our instruments and take advantage of our expertise in materials characterization – and share this message to your colleagues and friends who might be benefited by connecting to the IAC!

Sincerely,

Nan Yao

Director of PRISM Imaging and Analysis Center Email: <u>nyao@princeotn.edu</u> Phone: (609) 258-6394

