



ANFF
NSW News
January 2012

ANFF-NSW UNDERGRADUATE STUDENT RESEARCH SCHOLARSHIPS

We are delighted to announce the launch of the ANFF-NSW Undergraduate Student Research Scholarship (USRS) program which provides opportunities for undergraduate students engaged in high quality research to access ANFF-NSW facilities without charge. Two application rounds will be held each year, with applications for the inaugural round (covering ANFF-NSW access from January-June 2012) closing on **Friday 3 February 2012**. Undergraduate students from all Australian universities are eligible to apply. Details and application forms are available from Dr Linda Macks (contact details below).

NEW NANOFABRICATION TOOLS

Key new tools and capabilities commissioned in the ANFF-NSW laboratories throughout 2011 include:

e-beam evaporators: we are now running two Kurt J Lesker PVD75 e-beam evaporators.

The first system (accommodating up to 6" wafers) is dedicated to Si MOS-compatible processes and incorporates Ar plasma ashing capability. The second system (accommodating up to 8" wafers) is a general purpose tool which is currently configured for Al, Ti, Pt, Pd and Ir depositions.

Sputtering system: our HHV TF600 sputtering system is a general purpose tool with a large chamber. It can accommodate up to five 3" sputter targets, and has both rf and DC sputter power supplies.

Spectroscopic ellipsometer: our J A Woollam M-2000 ellipsometer is a valuable characterisation tool for a wide range of thin films. It is able to simultaneously capture 485 wavelengths in the range 210-1000nm. Data acquisition and analysis is based on WVASE32 software which we also have available for use outside the cleanroom at one of the ANFF-NSW hotdesk computers.

CONGRATULATIONS TO OUR AWARD WINNERS

We had much to celebrate throughout 2011 with many members of the ANFF-NSW community recognised for their outstanding work. In particular, we congratulate Prof Michelle Simmons, who was named 2011 NSW Scientist of the Year, and Prof Andrew Dzurak and Dr Andrea Morello who won the 2011 Eureka award for Scientific Research. The skill and dedication of our process engineering team was also recognised with Joanna Szymanska awarded an ANFF staff development award which will enable her to present some of her innovative electron beam lithography work at an international conference in 2012.

PAPER OF THE MONTH

We love to celebrate the research breakthroughs and successes of our users - please do keep us informed of the outcomes of your ANFF-NSW access.

This year we will be highlighting one publication per month which includes the acknowledgement: 'This work was performed in part at the NSW Node of the Australian National Fabrication Facility'. A \$100 discount off future ANFF-NSW access will be offered to each Paper-of-the-Month recipient.

To kick off this scheme, we are happy to announce that the first ANFF-NSW Paper-of-the-Month recipient is **Dr David Inglis from Macquarie University**. David accessed the high temperature Si furnaces at ANFF-NSW during fabrication of the nanochannel devices described in his paper 'Simultaneous Concentration and Separation of Proteins in a Nanochannel', *Angewandte Chemie-International Edition* **50**, 7546 (2011).

If you have a paper acknowledging ANFF-NSW usage published during January 2012, please let us know – we could be celebrating your research in the February edition of ANFF-NSW News!

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