



Australian Government



Nuclear-based science benefiting all Australians

Australian Nuclear Science and Technology Organisation

## MEDIA RELEASE

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### **Expanding nuclear science: Tenth neutron beam instrument approved**

Australia's nuclear science capabilities which help scientists study the world from the inside out expanded today when ANSTO\* gave the green light to build a tenth neutron beam instrument – Kookaburra.

Attached to Australia's only nuclear reactor – OPAL – Kookaburra, which is an ultra small-angle neutron scattering instrument, will join a world-class family of neutron beam instruments already operating at ANSTO.

Kookaburra will be vital for scientists studying a range of materials and organic structures, from polymers and industrial coatings to viruses, and how they react under various conditions and stimuli, such as intense heat, pressure or drugs.

Instrument project leader, Dr Christine Rehm, said Kookaburra and the complementary ANSTO instruments will help unlock many secrets in the materials and biological worlds.

“For example, knowing how a virus is acting at the nanoscale will give vital information to medical researchers trying to crack treatments and cures for complex illnesses,” she said.

“Kookaburra, like its brothers and sisters at ANSTO, is the first of its kind in Australia and could help solve a variety of questions about how structures, both visible and invisible, that surround us every day, actually change and adapt when influenced by stimuli, it's a fascinating area of work,” she said.

“The benefits for the manufacturing and medical industries resulting from the core research that will be conducted on Kookaburra will be invaluable to Australia.”

Kookaburra's measurement range starts at 100 nanometres and goes up to 10 microns. Detailed design of the instrument is about to commence, and it will be operating by 2013 with a price tag of \$2.7 million.

During 2008 six of ANSTO's first neutron beam instruments were licensed to conduct experiments and so far six papers have been published. The performance of these instruments is also creating excitement among the community of scientists around the globe.

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**For more information and to arrange interviews please call Sharon Kelly, Media Relations Manager on (02) 9717 9575 or 0400 394 085**