



Sunday 5 August 2007

NEWS RELEASE

Free public lecture: “The mighty neutron.”

Atomic energy and nuclear power generation are fast emerging as touchstone issues in the lead-up to the 2007 Federal Election, issues which threaten to pass over the heads of all but the most informed citizens.

To help inform everyday Australians about current nuclear science and technology and what it can do for them, the Victorian Division of the Australia and New Zealand Association for the Advancement of Science (ANZAAS) is hosting a free public lecture.

Called “**The mighty neutron**,” this fully-illustrated science talk will be given by Associate Professor Max Thompson (School of Physics, University of Melbourne) at 8pm this Wednesday in the Kaleide Theatre at RMIT University, 360 Swanston Street, Melbourne.

Neutrons are sub-atomic particles that have no electric charge, they are neutral, but they do behave like tiny bar magnets. Neutrons can reveal the position of the nucleus of an atom, the nucleus being only a tiny fraction of the overall volume of the atom.

Neutrons can also be used to detect explosives - be they in cars or parcels - and to find landmines. They can even be used as both a therapeutic and diagnostic tool in medicine (eg they can be used to treat cancer and to measure protein in the body).

But their most significant potential use is in the generation of electricity. Neutrons are the particles that power nuclear reactors and they, unlike coal-fired power stations, do not discharge greenhouse gases into the atmosphere.

"If you want to cut-down carbon and still have lots of electricity, then you must consider that you may want to make electricity using the neutron," Professor Thompson said.

"I'm not saying we should use it. But I think people should be aware that it is a viable source of power."

However, before Professor Thompson canvasses these uses for neutron science, he will first discuss nuclear force and the formation of nuclei. He will explain the properties of the neutron and the part it plays in the nucleus of the atom.

He will then bring his audience to an understanding of how the strong attraction that a slow-moving neutron has for other nuclei can be used to solve aspects of some of the most pressing problems to confront modern humanity.

ANZAAS gratefully acknowledges the support of the Finkel Foundation in meeting the cost of staging this event. Enquiries: Eric Webb, ANZAAS Talks, (03) 9885 6407.

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