

current events

This section carries events of interest to the synchrotron radiation community. Works intended for this section should be sent direct to the Current-Events Editor (icege@ornl.gov).

SESAME receives EUR 5 million boost

In a 28 May 2013 press release, the European Commission and CERN announced their support for the construction of SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East), a third-generation synchrotron source sited in Jordan. SESAME will bring together scientists from Bahrain, Cyprus, Egypt, Iran, Israel, Jordan, Pakistan, the Palestinian Authority and Turkey. In addition to its scientific mission, the project aims to promote peace in the region through scientific cooperation. SESAME is among the most ambitious scientific projects in the Middle East, and, like CERN, SESAME was established under the auspices of the United Nations Organization for Education, Science and Culture (UNESCO). The donations of components from the BESSY laboratory in Berlin, Germany, helped initiate SESAME, with initial construction started in 2003. Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science, said, “SESAME is one of the most important projects in the world right now. With its close parallels to the origins of CERN, I am very happy that we are able to make this important contribution to the young laboratory’s success.” The Commission will contribute EUR 5 million allowing CERN, working with SESAME, to supply magnets for the ring. With this step, SESAME is projected to begin commissioning in 2015. The new contribution builds on a previous contribution of EUR 5 million by the Commission.



SESAME light source.

South Africa joins the ESRF

On 21 May 2013, South Africa became the 20th country to join the European Synchrotron Radiation Facility (ESRF). In the signing ceremony, South Africa agreed to a medium-term arrangement with the ESRF at a level of 0.3%. Professor Nithaya Chetty, Group Executive for Astronomy at the National Research Foundation, called it ‘a solid achievement that makes us extremely happy’. The



Signing ceremony as South Africa joins the ESRF.

arrangement is valid until 2017, with the hope of an even stronger relationship in the future. Professor Chetty was joined by Professor Thomas Auf der Heyde, Deputy Director General of the Department of Science and Technology, Professor Tshepo Ntsoane, current chairperson of the Synchrotron Research Roadmap Implementation Committee (SSRIC) and senior scientist at the South African Nuclear Energy Corporation (NECSA), and Professor Simon H. Connell from the Department of Physics of the University of Johannesburg.

Moncton, Galayda, Emery and Borland win the 2013 Compton Award

The US Department of Energy’s Advanced Photon Source (APS) and the APS Users Organization presented the 2013 Arthur Compton Award to David E. Moncton, John N. Galayda, Michael Borland and Louis Emery. The award recognizes their visionary leadership and technical ingenuity in introducing ‘top-up’ operations to the synchrotron radiation community. Although the top-up



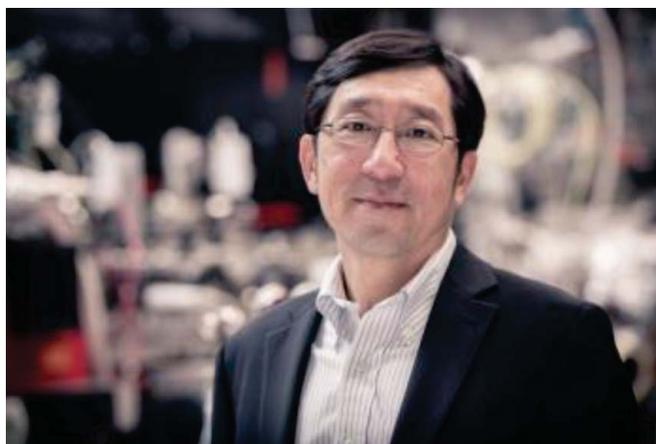
Compton Award Ceremony with, from left to right, Brian Stephenson, Associate Laboratory Director for the Advanced Photon Source, with winners John Galayda, David Moncton, Louis Emery and Michael Borland.

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operation was somewhat controversial before its actual demonstration, it is now universally recognized that top-up operations improve beam intensity, beam stability and operations flexibility. Indeed, top-up operations are now standard for most third-generation light sources worldwide. Efforts to demonstrate top-up operations began at the APS in September 1996 with first tests with shutters open in June 1999. In October 2001, top-up became the default mode of APS operations. Adoption of top-up operations at the APS required two advances: (i) safe injection with shutters open, and (ii) demonstration that injections did not introduce unacceptable glitches to data.

Plans for LCLS-II continue despite uncertain funding

On 31 May 2013, Chi-Chang Kao, Director of SLAC, provided an update on the planned extension of the Linac Coherent Light Source facility (LCLS). The update was prompted by a recent status review of the LCLS-II project by the US Department of Energy (DOE). As explained by Kao, the purpose of the review was “to assess our readiness to begin fabricating all the project’s technical components and start construction of the new tunnels and experimental halls”. However, before major civil construction work, planned for 2014, can be carried out, the project must become a line-item, and SLAC and the DOE are looking at contingencies if this is not possible due to a continuing resolution of the US Department of Energy budget.



SLAC Director Chi-Chang Kao.

NSRRC users win Y. Z. Hsu scientific awards

National Synchrotron Radiation Research Center (NSRRC) of Taiwan users Professor Hsing-Wen Sung from the Department of Chemical Engineering/Biomedical Engineering of Tsing Hua University was awarded with the ‘Y. Z. Hsu Technology and Innovation Award (Nano-Tech)’; Professor Chun-Wei Chen from the Department of Materials Science of National Taiwan University won the ‘Y. Z. Hsu Scientific Paper Award (Nano-Tech)’; Professor Yuh-Ju Sun from Life Sciences College of Tsing Hua University and Professor Ann-Shyn Chiang from Brain Sciences Center of Tsing Hua University won the ‘Y. Z. Hsu Scientific Paper Award (Biotechnology Pharmaceutical)’; and Professor Ruey-Shin Juang from the Chemical Engineering and Materials Science Department of Yuan Ze University was awarded the ‘Y. Z. Hsu Scientific Paper

Award (Green Technology)’. The winners were selected from a field of outstanding candidates.

The Far Eastern Y. Z. Hsu Science and Technology Memorial Foundation was established in 2001 in remembrance of the late founder of the Far Eastern Group, Mr Y. Z. Hsu. The sponsorship of the ‘Y. Z. Hsu Scientific Chair Professor’ and the ‘Y. Z. Hsu Scientific Paper Award’ is committed to the Foundation’s founding principle of enhancing ‘Technology and Innovation’.

CLS searches for new director

The Canadian Light Source (CLS) has initiated a global search for a new director. The five-year appointment comes with a tenured professorship at the University of Saskatchewan and with the possibility of an additional two years to search for a successor. Walter Davidson, chairman of the CLS board of directors, said the CLS needs ‘visionary leadership to help guide it as it expands in the coming years’. Davidson explained that the successful candidate must have experience working with synchrotrons. Current Director, Josef Hormes, explained that, for the successful candidate, ‘We need a good balance between a salesman and an excellent scientist’. Hormes estimated that only 5–10% of his time is spent doing science, with the bulk of his time devoted to lobbying the five federal and two provincial agencies that fund CLS. The CLS is a third-generation synchrotron sited in Saskatoon, Canada.

Diamond research boosts young scientist

Joshua Sauer, a school science student, has been awarded an esteemed Royal Society of Chemistry prize for his research into self-healing materials following pioneering research he carried out at Diamond Light Source last year. Having obtained a Nuffield Research Award in early 2012, Joshua arranged to spend the summer working with a team of scientists from Reading University. The group, led by Professor Howard Colquhoun, were investigating structurally engineered materials that were capable of automatically repairing the damage caused by use over time.

The Reading team used synchrotron light to analyze their materials, and carried out experiments at the Diamond Light Source. The results of the experiments are currently being prepared for publication, with the school student as co-author.

Joshua was encouraged by the Nuffield Foundation to enter his research in the UK National Science and Engineering Competition, an event organized by the British Science Association and intended to showcase the important scientific work of talented school-level researchers. The finals were held at the Big Bang fair in London, and were attended by a number of significant public figures, including the Prime Minister David Cameron and TV science presenter Professor Brian Cox.

Joshua was awarded the most esteemed prize possible in his field, the National Chemistry Prize. Having received this prestigious accolade, the young prize-winner has now been offered a place to read Chemistry at Oxford. Joshua commented, ‘My experience at Diamond was invaluable to my research work. I felt very privileged to run my crystallized sample on the beamline and I greatly enjoyed being shown around the synchrotron. I wanted to help the department at Reading in any way that I could over the summer and I feel honoured that they would include my name in their published results.’