

7th USERS' MEETING OF SESAME

17 – 22 November, 2008 – Cairo, Egypt

SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) is an intergovernmental organization created under the auspices of UNESCO and modeled closely on the CERN project in Switzerland. SESAME is building a third-generation synchrotron light source in Jordan as a cooperative venture including several countries of the region. SESAME will be used by scientists from the region, and qualified scientists from around the world, for basic and applied research in physics, chemistry, biology, archeology, environmental studies and many other areas of science and technology.

The facility under construction includes a 0.8 GeV injector system given as a gift from the BESSY laboratory in Germany, plus beam line equipment from the Daresbury Laboratory in the UK, LURE in France, the Swiss Light Source, and US facilities (the ALS at Berkeley and SSRL at Stanford). A completely new 2.5 GeV storage ring with an emittance of 26 nm-radians and 12 places for insertion devices is under construction. It is scheduled for first operation at the end of 2011 and first experiments in early 2012. The site and recently completed building to house the facility have been provided by Jordan. At present SESAME has a staff of about 20 scientists, engineers, technicians and administrators.

Current Members of the governing SESAME Council are Bahrain, Cyprus, Egypt, Israel, Iran, Jordan, Pakistan, Palestinian Authority, and Turkey, whereas the membership is pending for Morocco, Qatar, Oman, and United Arab Emirates. SESAME observers include France, Germany, Greece, Italy, Kuwait, Portugal, Russian Federation, Sweden, United Kingdom, and United States.

SESAME is truly an international science project catering to the needs of scientists in the region and is helping in capacity building as well as building the scientific research and development base. SESAME will provide opportunities for the training of students in frontier areas of science without having to leave the region and attract mid career scientists working abroad to return to the region. It will also enable scientist from the region to address local biomedical and environmental issues and concerns. SESAME will join about 60 synchrotron radiation laboratories now in operation around the world, and become part of this active and vibrant international community (see www.lightsources.org)

Besides science, SESAME will help generate harmony and peace in the region by fostering good relationships between scientists of countries having diverse political and ethnic backgrounds.

The Users' meetings of SESAME started in 2002 and this year the 7th Users meeting will be held. The meeting will be held alongside the SESAME-JSPS (Japanese Society for Promotion of Science) Workshop jointly organized by the Cairo University,

Egyptian Academy of Sciences, SESAME and JSPS. The Users meetings have played a critical role in terms of preparing scientists of the region to use the SESAME machine, promoting scientific exchange and collaboration between scientists and creating greater harmony between scientists from the region.

Typically over 100 scientists attend a Users' meeting from SESAME members, plus scientists from other countries in the region as well as scientists with experience in synchrotron radiation from around the world.

The meeting comprises talks by invited leading international experts in the field and seminars by the participants about their research related to synchrotron light. In these meetings advances in the scientific program of SESAME are discussed and the Technical and Scientific Directors of SESAME present a status report on the construction of the machine and beamlines.

In the past Users' Meetings of SESAME topics of talks and discussions included Material Science, Medical Applications, Structural Molecular Biology, Atomic and Molecular Spectroscopy, Environmental Science, X-ray Diffraction, Nano-science, Spin-resolved Two-Photon Emission, and X-ray microscopy. A main objective of SESAME Users' meetings is to involve regional scientists in the design and planning for the first phase beamlines and scientific program.

More information is available on the SESAME website (www.sesame.org.jo).