APR08-2007-000081

Abstract for an Invited Paper for the APR08 Meeting of the American Physical Society

The Impact of the SESAME Project on Science and Society in the Middle East HERMAN WINICK, SLAC/SSRL/Stanford University

SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) is a UNESCO-sponsored project that is constructing an international research laboratory, closely modeled on CERN, in Jordan (www.sesame.org.jo). Ten Members of the governing Council (Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Pakistan, Palestinian Authority, and Turkey) have responsibility for the project, led by Herwig Schopper, Council President since 1999. In late 2008 Chris Llewellyn-Smith will become Council President. SESAME was initiated by a gift from Germany of the decommissioned BESSY I facility. The BESSY I 0.8 GeV injector is now being installed in the recently completed building, funded by Jordan, as components are procured for a new 133 m circumference, 2.5 GeV third-generation storage ring with 12 locations for insertion devices. Beam line equipment has been provided by laboratories in France, UK, and US. Support also comes from EU, IAEA, ICTP, Japan Society for the Promotion of Science, the US Department of Energy and State Department, and laboratories around the world. The broad scientific program includes biomedical, environmental, and archaeological programs particularly relevant to the Middle East. Five scientific workshops and six annual Users' meetings have brought together several hundred scientists from the region, along with researchers from around the world. Training programs have enabled about 100 scientists from the region to work at synchrotron radiation laboratories. These activities have already had significant impact on science and society in the Middle East, for example leading to collaborations between scientists from countries that are not particularly friendly with each other, and to national planning emphasizing synchrotron radiation research. When research starts in 2011 this impact will grow as graduate students are trained in the region in many scientific disciplines, and scientists working abroad are attracted to return.