

Abstract:

SESAME (Synchrotron-Light for Experimental Science and Applications in the Middle East) is an international light source under design and construction in the Middle East under the auspice of UNESCO. Iran is one of the founders and an active member of the project design and engineering. The machine design is a modification of BESSY I machine in Germany and based on a 2.5 GeV 3rd generation light source with the emittance of 26 nm.rad and 12 straights for the insertion devices.

The electrons are injected into the 38.4m booster from a 22MeV Microtron and after acceleration to 800 MeV are transferred to the 133.2m Main Storage Ring. The Refurbishment and installation of 22MeV Mikrotron started at the site from January 2008. In this talk the principal design and installation of Bessy I Microtron and booster and the challenges for realization of the SESAME ring is presented.