

FOURTH GENERATION LIGHT SOURCE SKIF IN NOVOSIBIRSK: STATUS AND PERSPECTIVES

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SKIF is the Russian acronym for Siberian Circular Light Source – a new fourth generation synchrotron light facility that is now under development in Novosibirsk (Russia). SKIF consists of 200 MeV linear accelerator-preinjector, 3 GeV booster synchrotron (154 m in circumference), 3 GeV electron storage ring (476 m) with extremely low natural horizontal emittance of 73 pm·rad and number of scientific and engineering infrastructures [1]. Fig.1 shows the SKIF buildings and premises with the main ring-shape building in the middle.

Fig. 1. General view of the SKIF light source facility.

SKIF storage ring has 16-fold symmetry magnetic lattice with 16 6-m-long straight sections; two sections are for RF system and injection others 14 will accommodate different insertion devices (including superconducting ones) delivering high brightness X-rays to up to 30 experimental stations. First six stations are under development now.

Here we report status of the SKIF design and manufacture including accelerator systems, experimental stations, engineering infrastructure and civil engineering.

1. Baranov G., Bogomyagkov A., Levichev E., Morozov I. and Sinyatkin S. Phys. Rev. Accel. and Beams 24, 120704 (2021).

The speaker is a student or young scientist

No

Section

1. Design and development of charged particle accelerators and ionizing radiation sources

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