

A specialized research station will appear on the synchrotron under construction in Novosibirsk by the Siberian Ring Source of photons (SKIF). It will be intended to study toxins of poisonous snakes and proteins of bacteriophages – viruses that affect the bacteria. The launch of the station is planned after 2027.

SKIF is a source of synchrotron radiation of the fourth generation and will allow scientists to receive accurate data on the structure of various substances. The new station will use the method of X-ray analysis for the study of biopolymers crystals at different temperatures.

One of the key areas of operation of the station will be the study of snake poisons that contain cardiotoxins. These proteins, contained in cobra and other dangerous snakes, can be used in the development of anti-cancer drugs and other drugs.

Also, the station will study the photosensitive proteins of rhodopsins. These works can help in creating methods for the treatment of neurological diseases, such as epilepsy and Parkinson's disease, as well as contribute to the development of neuroprosthetics.

The station project was developed jointly with scientists of the Moscow Physics and Technical Institute.