

**Joint Institute for Nuclear Research - Cyclotron complex DRIBs**

**Cyclotron complex DRIBs**

The Heavy ion accelerators of Flerov Laboratory of Nuclear Reactions have been integrated in a complex DRIBs (Dubna Radioactive Ion Beams). The new DRIBs accelerator complex is aimed at studying nuclear reactions, the synthesis of new elements and nuclei as well as studying of their properties in reactions with stable and unstable ion beams enriched with protons or neutrons.



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Instruments:	Domain and object of research : ENE
Name of the instrument or of the technique used	Brief description of the Instrument or of the technique used
<b>DC-280</b>	DC-280 cyclotron is the basic facility of the SuperHeavy Element Factory (SHE Factory) of the DRIBs complex. The DC-280 heavy ion accelerator is the world-leader among accelerators of this type. The designed intensity of accelerated heavy ion beams of calcium-48 produced at the DC-280 accelerator will reach $6 \cdot 10^{13}$ ions per second that exceeds intensities achieved at the operating facilities all over the world in 2019. The physical program for this facility include the synthesis of superheavy elements, studying their nuclear and chemical properties.
<b>U-400 and U-400M</b>	The U-400 and U-400M cyclotrons have been built to study nuclear structure and mechanisms of nuclear reactions. The physical tasks that can be solved using these facilities include the spectroscopy of superheavy elements, study of the structure of light drip-line nuclei, study of the resonance structure of the nuclear systems beyond the drip-line, study of mechanisms of low-energy nuclear reactions induced by heavy ions.