

SPI FOR THE JINR ACCELERATOR COMPLEX

Friday 18 September 2015 10:00 (30 minutes)

The project assumes the design and construction of a universal high-intensity source of polarized deuterons (protons) using a charge-exchange plasma ionizer. The output $\uparrow\text{D}^+$ ($\uparrow\text{H}^+$) current of the source is expected to be at a level of 10 mA. The polarization will be up to 90% of the maximal vector (± 1) for $\uparrow\text{D}^+$ ($\uparrow\text{H}^+$) and tensor (+1, -2) for $\uparrow\text{D}^+$ polarization. Realization of the project is carried out in cooperation with INR of RAS (Moscow). The new Source of Polarized Ions (SPI) at the JINR NUCLOTRON accelerator facility will make it possible to increase the polarized deuteron beam intensity up to the level of $5 \cdot 10^{10}$ d/pulse. The status of development and testing is discussed.

Primary author: Dr FIMUSHKIN, Victor (JINR,Dubna)

Co-author: Dr BELOV, Alexander (INR of RAS)

Presenter: Dr FIMUSHKIN, Victor (JINR,Dubna)

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