

The SPES project at the INFN- Laboratori Nazionali di Legnaro

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The SPES Radioactive Ion Beam (RIB) facility at INFN-LNL is in the construction phase. It is based on the ISOL method with an UCx Direct Target able to sustain a power of 10 kW. The primary proton beam is delivered by a high current Cyclotron accelerator, with energy 35-70 MeV and a beam current of 0.2-0.5 mA. Neutron-rich radioactive ions will be produced by proton induced Uranium fission in a UCx target at an expected fission rate in the target in the order of 10^{13} fissions per second. The exotic isotopes will be re-accelerated by the ALPI superconducting LINAC at energies of 10 AMeV and higher, for masses in the region of $A=130$ amu, with an expected rate on the secondary target of $10^7 - 10^9$ pps. The SPES project has the aim to provide high intensity and high-quality beams of neutron-rich nuclei as well as to develop an interdisciplinary research center based on the cyclotron proton beam.

The general overview and the status of the project will be presented.

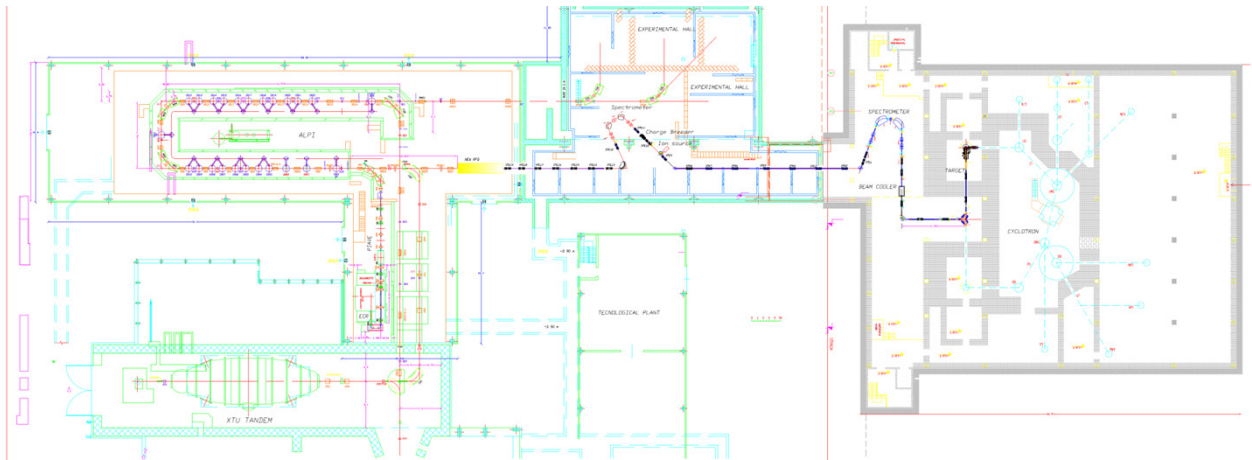


Figure 1: Layout of the SPES ISOL facility.