The Ion Beam Laboratory at ITN (Instituto Tecnológico e Nuclear)

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The ion beam laboratory of ITN (Instituto Tecnológico e Nuclear), Sacavém, Portugal, has already been included in a NUPECC survey on small-scale accelerator facilities. It comprised then a 2.5 MV Van de Graaff equipped with a micro-probe facility and a Danfysik 150 KV implanter.

The recent acquisition of a 3MV Dynamitron type Tandem accelerator (including a micro -30μ m - AMS reaction line) will open new perspectives of applied work (materials, health, environment, geology, archaeology and art), which has been the strong drive of this laboratory, and also of nuclear astrophysics projects. In addition, new software tools are being developed to combine Backscattering, X-ray and Elastic Recoil spectra analysis (NDF code).

We propose to present details on this new facility and on improvements of the previous equipment, making also a survey of the ITN/CFNUL work programme for the near future related to applications (including the micro-probe facility) and to nuclear astrophysics.