

Demonstration Rutherford Backscattering Spectrometry

Experiment

The principle of SPM (Rutherford backscattering spectrometry) will be demonstrated using a [Tandem Pelletron Ion Accelerator NEC 5SDH](#). The NEC accelerator produces beams of protons or alpha particles at energies up to 3.4 MeV for protons or 5 MeV for alpha particles at currents up to 100 nA.

The specimen for this experiment will be a Ni-Ti multilayer deposited on a silicon substrate. RBS spectra of this specimen will be acquired during the laboratory demonstration. The spectra will show information about the spatial distribution of all three involved atomic species. In particular, the data will enable to assess the thickness of the deposited layers.